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ABSTRACT

Six major indexing and abstracting services were studied to isolate similarities and differences, obtain raw data, and attempt to estimate primary material covered by the services. The 1973 issues of all services were examined and statistics were obtained for periodical and non-periodical entries. Data were analyzed and the services compared by: (1) subject arrangement, (2) coverage and overlap of periodicals, (3) core periodicals, (4) coverage of nonjournal material and archives, (5) timeliness, (6) bibliographic description, and (7) origin of abstracts. Services were found to be uneven in coverage and timeliness. The authors concluded that: (1) each service's view of the scope of the field governs coverage of library science and/or information science literature, and periodical and/or nonperiodical literature, and (2) the low circulation of the services may hinder financing of improvements. It was recommended that the editors and representatives of the publishers meet to explore the possibility of linking English language services into a single, comprehensive service. Extensive data tables, lists, and service profiles are included. (KP)

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A COMPARATIVE ANALYSIS OF THE MAJOR ABSTRACTING AND INDEXING SERVICES FOR LIBRARY AND INFORMATION SCIENCE

with notes on their coverage of archive material

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by

Tom Edwards, Editor, LISA

with sections by Paul Dansey,
Verina Horsnell, Norma Jackson and
E. Michael Keen

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INTRODUCTION

In May 1972, the Unesco Division of Research and Planning in Documentation, Libraries and Archives initiated activities to encourage greater international co-operation and co-ordination between documentation, library and archives journals, through a Symposium of Editors of Journals of Documentation, Libraries and Archives.

The present survey has been carried out as a result of one of the recommendations made by participants attending the Symposium. The relevant recommendation reads:

> "Unesco should undertake a study of the presentation of periodicals in the field; a statistical study of the primary literature in the field and a comparative study of the major abstracting and indexing services; [and] a feasibility study of an indexing or abstracting network based upon a survey of the world's primary literature in the field."

The contract, placed with Mr. Tom Edwards, Editor of Library and Information Science Abstracts in February 1974, was "to prepare a study on the comparative analysis of major abstracting and indexing services in the field of documentation and archives, taking into consideration the recommendations of the Symposium of Editors of Documentation, Library and Archives Journals (Unesco, May 1972). The completed manuscript was received by Unesco in December 1974.

The survey contains comparative data on the coverage of documentation, library and archives periodicals by six major abstracting and indexing services and makes a recommendation for future action to improve co-operation between these services.

Work Plan

The following work plan was accepted by Unesco in April 1974. As the investigation proceeded, modifications were made to the work plan. In particular, the area concerned with the coverage of periodicals by the services was expanded. Inevitably, with the short time available for the study, this had some effect on the other areas.

UNESCO

Comparative analysis of the major abstracting and indexing services in the field of documentation, librarianship and archives - Contract no. 680592

Work Plan

1. Services to be studied

This study will include analyses of the following services:-

Bulletin Signalétique, Section 101 - Science de l'Information Documentation

Information Science Abstracts (ISA)

Library and Information Science Abstracts (LISA)

Library Literature

Referativnyi Zhurnal, Section 59 - Informatics

It was a recommendation of the 1972 Unesco Symposium of Editors of Documentation, Library and Archives Journals that these services should be compared. It is also necessary to include in the present study the relevant part of the INSPEC service, i.e., the section on information science in Computer and Control Abstracts. Some mention will also have to be made of the recent approaches towards total secondary service control of the field with the publication of a contents list service, the American Current Awareness - Library Literature (CALL); a translating service, Selected Publications in European Languages (SPEL) which includes lists of English translations made at the College of Librarianship Wales; and the Library Association's RADIALS bulletin (Research and Development - Information and Library Science).

2. Background to the present study

A brief outline of previous work in the analysis of secondary services in the field will be given including:-

Coblans, H. - Background paper prepared for the 1972 Unesco Symposium

Gilchrist, A. and Presanis, A. - Library and Information Science Abstracts: the first two years. Aslib Proc., 23 (5) May 71, 251-256

Dansey, P. - A bibliometric survey of primary and secondary information science literature. Aslib Proc., 25 (7) July 73, 252-262

Novakova, H. - The analysis of secondary sources in informatics. Prague, Charles University, Department of Librarianship and Scientific Information, 1969

and various articles by S. Goldstein in Current Awareness - Library Literature.

3. General introduction

The study will include general notes on each service, including historical outlines, arrangements for publication, pricing, circulation, staff, etc. Information will be obtained by questionnaire addressed to the editors.

4. Comparison of coverage

The 1973 issues of each service will be compared in the following areas:-

(1) list of periodicals covered;
(2) articles abstracted from periodicals, including a detailed comparison of the coverage of individual issues of the primary journals;
(3) coverage of the proceedings of conferences and other meetings, i.e., a breakdown of the actual proceedings covered including an analysis of the treatment of individual papers;
(4) coverage of reports, pamphlets, monographs, patents, etc.

This part of the study will be carried out in the light of certain comments mady by Dr. Coblans in his 1972 Background Paper. He remarks (section 4.2) that "we do not know quantitatively which periodicals give the best yields of abstractable/indexable material and to what extent there are gaps in the coverage"; and, passim, there is a lack of agreement on the scope of the subject field.

The method adopted to carry out the comparative coverage will be to check each entry, noting the relevant details from each citation. Any general conclusions drawn will have to be substantiated through the Martyn/Slater method of testing abstracts journals by checking each service's coverage of items in a bibliography (Journal of Documentation, 20 (4) Dec. 64, 212-235).

5. Timeliness of the services

Delays in the appearance of abstracts or entries will be studied over a 2-year period (say, 1972 and 1973) and will include the non-journal material covered. For journals, the criterion used will be the date of the receipt of material in the Library Association and Aslib libraries. For conference proceedings and monograph material, publication date will be used.

6. Subject arrangement

A comparison will be made of the subject indexing structures of the services. A small retrieval test will be carried out on a list of items known to be included in each service. It may be possible to make arrangements for this to be carried out at a UK library school. The test will include subjective assessments of the indexing structures. Possibilities for the exchange of material with appropriate indexing indicators supplied from an Intermediate Lexicon will be outlined, including a consideration of recent work carried out at the Polytechnic of North London School of Librarianship.

7. Bibliographic citations

The order of the elements in the citations of each service will be examined with a view to possibilities for the interchange of material.

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1. This investigation was omitted from the survey because, with the short time available, it was not possible to collect sufficiently representative data.

8. Quality of abstracts

Users' opinions will be sought on the quality standards of the abstracts. This is bound to be subjective and any conclusions drawn will need qualification. However, general implications might be possible concerning, e.g., the value of indicative vs. informative abstracts, and what users expect to find in an abstract for an item in a foreign language.

9. Administrative structure of the services

An examination will be carried out, by circulating the editors, of any administrative constraints on the services, e.g., the employment of full-time or part-time staff; the effects of forming part of a larger service such as Bulletin Signalétique or Referativnyi Zhurnal; the implications of sponsorship; and the necessity for remaining commercially viable.

10. Archives

The 1972 Unesco Symposium included discussions on the inclusion of archives work in the secondary services under study. There would appear to be some doubts about the appropriateness of linking secondary services for the archival field, with documentation and library work, and this will be investigated. Coblans' Background Paper to the 1972 Symposium suggests that the inclusion of a relatively small number of primary archive journals would lead to adequate coverage.

11. Future prospects

Although the present study is confined to a comparative analysis of the "Big Five" services and their present performance it is felt that the opportunity should be taken of indicating possible future approaches to bibliographical control in the field, e.g., cooperation and interchange of abstracts, computerization, and defining the scope of the subject field. The last-named point has links with another recommendation of the 1972 Unesco Symposium that a statistical study of the primary literature in the field should be undertaken.

The study is expected to cover 80 to 100 standard pages. Bar charts and tables will be included as appropriate. The cooperation of personnel working on the services under investigation will be sought as well as help from the staff and students at a UK library school.

T. Edwards,
Editor,
LISA

26th March, 1974

Reference

1. Symposium of Editors of Documentation, Library and Archives Journals, Paris, Unesco House, 16-18 May 1972. Summary Report, Recommendation No. 5.

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CHAPTER 1

BACKGROUND TO THE SURVEY

The bibliographical control of library and information science has received increasing attention over the last decade. During this period steps have been taken towards the construction of a secondary service network that can be of real value to the profession. The range of services now available includes a tables of contents publication (Current Awareness - Library Literature - CALL); a well-established indexing service (Library Literature); the Big Four abstracting services(1) - all developed since 1963; several highly regarded reviews of the literature, e.g., the Annual Review of Information Science and Technology (ARIST); a variety of means for obtaining translations of foreign language material, including, for English-speaking users, SPEL (Selected Publications in European Languages) produced at the College of Librarianship Wales(2); and various publications directed towards the dissemination of information on research in the field, e.g., the Library Association's RADIALS Bulletin (Research and Development - Information and Library Science) - these publications will, no doubt, be co-ordinated through Unesco's International Information System on Research in Documentation (ISORID).

Rapid growth has taken place over a short period and it may well be time to pause in order to consider whether we are travelling along the right lines. Growth of the services has been accompanied by an increasing number of surveys concerning the services themselves. This could be a symptom of some unease about the way in which the resources of a comparatively small profession are being employed. The surveys have concentrated on the abstracting services of the profession; in several cases bibliometric techniques, e.g., citation studies, have been used.

Review of the literature

Buntrock(3) studied nine secondary services, estimated their time delays and compiled a list of ten productive titles. Whatley's survey(4), financed by the Council on Library Resources, was designed to cover sixteen services - more were discovered during the period of the investigation. The survey gave details concerning editorial policies, selection criteria, coverage, styles of bibliographical citation, quality of abstracts, subject arrangements, indexing, time lags, and user assessments of the services. The conclusion discussed a plan for an IISA -- an international abstracting service for library science and documentation. Gilchrist(5-7) carried out a number of analyses in order to obtain data on coverage, key journals, and publication delays. He played a major part in the discussions that led to the formation of Library and Information Science Abstracts and two of his surveys are oriented towards this service. Novakova(8) analysed six services and produced a ranking list of thirty productive journal titles. Dansey(9) surveyed five abstracting services, taking 1971 as the base year, and gave ranking lists of the most productive periodicals for each service. He also used the Martyn/Slater method of testing abstracts journals(10) by checking each service's coverage of items in bibliographies obtained from the 1971 Annual Review of Information Science and Technology. Volkova(11) compared the Big Four abstracting services under their subject arrangements, methods used for bibliographic description, types of material covered, periodical titles common to all four services (a list of 29 titles is given), time delays, and indexing. It is concluded that none of the services fully covers the world's output of scientific literature on informatics and duplication between the four services is insignificant. Several statistical tables are given

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including, inter alia, one on the distribution of material abstracted according to type of publication, another on the languages of the periodicals covered by each service, and a third which analyses the types of abstracts contained in each service. Goldstein[12] surveyed five bibliographical control tools with the main purpose of providing a "table look-up" to their 1972 periodical title coverage. The publications investigated were Information Science Abstracts, Library and Information Science Abstracts, Referativnyi Zhurnal: Informatics, Library Literature, and CALL. This work produced a list of 855 journals from which different lists of "core" titles were generated.

Problems raised by the surveys

The following points are noteworthy: (1) prominence is given in the surveys to "information science", "informatics", and "documentation" rather than to "library science"; (2) varying lists of core periodical titles have been generated; and (3) in spite of the large quantities of data obtained, the gaps in covering the primary literature and the amount of duplication between the services remain virtually unknown.

Any new investigation must attempt to come to terms with these problems and the first point, which might be summarised as "Information science versus Library science" raises acute difficulties.

It is necessary to emphasise that bibliometric surveys of our field have tended to treat library science as an activity peripheral to information science. This is a direct consequence of the profession's relative youth and its failure to define the scope of the subject area. Coblans has put it thus,

> "As a subject it is still in the pre-scientific stage rather like alchemy was in the Renaissance."(13)

Perhaps it was not the intention of the workers conducting the surveys to relegate library science to a subordinate place. However, the following quotations are representative of the effect produced.

> "Also different in the publications considered is the approach to the coverage of literature on the work of libraries. The greatest coverage was present in LISA which covers the activities of libraries of all types... and from various points of view ... RZh considers these materials only in so far as librarianship overlaps with informatics."(14)

> "There is some variation between the services in their selection of articles from these core journals. Some such as LISA select more from the librarianship journals and some of the others select more from the computer science journals."(15)

(The italics have been added). The second quotation implies that librarianship is on a par with computer science for selection purposes.

Clearly, the present survey, by including Library Literature as well as Library and Information Science Abstracts, will have to treat library science as an activity with status equal to that of information science. The convention adopted in this investigation is that our field covers a broad spectrum of activities including, on the one side, such matters as school librarianship and library architecture and, on the other, data banks and communication problems. It is an

interesting fact that even those abstracting services whose titles reflect a main concern with information science have already added the Journal of Librarianship to their lists of periodicals scanned. This "traditional" library science journal, which commenced publication as recently as 1969, is covered by all the services under investigation in the present study.

The problem of archives within this spectrum of activities is treated separately in Chapter 15.

Approaches to the problems

It is not easy to overcome the problems presented in points (2) and (3) above. The compilation of a core list of periodicals and the determination of gaps in covering the primary literature are obviously affected by the profession's vagueness concerning the boundaries of its subject field. The collection of more data is fundamental and attempts must be made to correlate any new findings with previous work. It is important to make some estimation of the amount of primary literature available. More information might be obtained with the modification of the techniques already employed, e.g., by including dates of issues abstracted in ranking lists of periodicals.

References

1. The Big Four. A term coined by Herbert Coblans as shorthand for the international abstracting services in our field: the relevant sections of Bulletin Signalétique and Referativnyi Zhurnal; Information Science Abstracts; and Library and Information Science Abstracts. With the addition of Library Literature the shorthand becomes The Big Five

2. SPEL (Selected Publications in European Languages). College of Librarianship Wales. Reviewed by T. Edwards, Library Association Record, 76 (5) May 1974, p. 101.

3. Buntrock, H. Dokumentation der Dokumentation II. Nachrichten für Dokumentation, 15 (5) September 1964, pp. 145-147.

4. Whatley, H.A. A survey of the major indexing and abstracting services for library science and documentation. London, The Library Association, 1966.

5. Gilchrist, A. Documentation of documentation: a survey of leading abstracts services in documentation and an identification of key journals. Aslib Proceedings, 18 (3) March 1966, pp. 57-86.

6. Gilchrist, A. Library and Information Science Abstracts: a brief progress report. Aslib Proceedings, 21 (8) August 1969, pp. 325-327.

7. Gilchrist, A. and Presanis, A. Library and Information Science Abstracts: the first two years. Aslib Proceedings, 23 (5) May 1971, pp. 251-256.

8. Novaková, H. The analysis of secondary sources in informatics. Prague, Charles University Department of Librarianship and Scientific Information, 1969. (Report No. L-1-09-6/3)

9. Dansey, P. A bibliometric survey of primary and secondary information science literature. Aslib Proceedings, 25 (7) July 1973, pp. 252-263.

10. Martyn, J. and Slater, M. Tests on abstracts journals. Journal of Documentation, 20 (4) December 1964, pp. 212-235.

11. Volkova, E.Ya. Sravietel'naya kharakteristika vazhneyshikh mirovikh referatnikh zhurnalov po informatike /Comparative analysis of the characteristics of the world's major abstracting journals on informatics/ Sovetskaya Bibliografiya (139) 1973, pp. 42-53.

12. Goldstein, S. Statistical bibliography and library periodical literature - part 4: 1972 abstracting, indexing, and contents coverage of library and information science periodicals. CALL (Current Awareness - Library Literature), 2 (4) July-August 1973, pp. 3-13.

13. Coblans, H. Background paper, Symposium of Editors of Documentation, Library and Archives Journals, Paris, Unesco House, 16-18 May 1972 (COM-72/CONF. 11/3), section 1.1.

14. Volkova, ibid. /From English language translation held in the LISA editorial office/.

15. Dansey, ibid. p. 258.

CHAPTER 2

PROFILES OF THE SERVICES INVESTIGATED

It was decided to include the following secondary services in the study:-

Library Literature (LL)

Library and Information Science Abstracts (LISA)

Referativnyi Zhurnal, Section 59 - Informatika (RZI)

Information Science Abstracts (ISA)

Computer and Control Abstracts, Chapter 8.5 (CCA)

Bulletin Signalétique, Section 101 - Science de l'Information Documentation (BS)

The order of this list reflects the commencing dates of the services - LL was founded in the 1930's, BS in 1970.

The following summaries of the main points of interest concerning each service are intended simply as a backcloth to the investigation. Most of the information has been obtained from the literature. Any mistakes in interpretation are, however, the responsibility of the present writer. In some cases the information has been extracted from brief news items and the sources are not mentioned. Major sources are listed at the end of each profile.

Library literature (LL)

LL is an indexing service published by the H.W. Wilson Company, Bronx, New York City. It covers periodicals, books, pamphlets, films, filmstrips, microforms, library school theses and research papers. The doyen of secondary services in its field, LL was started by the American Library Association's Junior Members Round Table as a continuation of Bibliography of library economy 1872-1920, compiled by H.G.T. Cannons and published in 1927. Library Literature 1921-32 appeared in 1934. Passed on to the Wilson Company, the first volume under the revised arrangement was Library literature 1933-35 and in 1936 the first annual volume appeared. Semi-annual publication began in 1939, was continued in 1946, changed to quarterly in 1955 and then to six issues in 1969. A bound annual volume and a two-year cumulated volume are also published. The sub-title was changed in 1969 to read "an index to library and information science". Regular features of the bi-monthly issues are a select list of recent accessions of the Educational Resources Information Center (ERIC) Clearinghouse on Information Resources and a checklist of monographs cited for the first time. LL is arranged on the dictionary principle with all entries - author, title, and subject entries together with references - in a single alphabetical sequence. The chief members of staff are the editor, an assistant editor and an indexer. There are also several contributors who translate and index material in foreign languages. Additional clerical back-up is available. LL is printed by traditional methods. It is understood that the application of computerised techniques to various Wilson Company operations has been under investigation for some time by its Research Department. Circulation of LL is 2,900 copies.

Sources

Library literature. Prefatory Note.

Whatley, H.A. A survey of the major indexing and abstracting services for library science and documentation. London, The Library Association. 1966, pp. 22-24.

Library and information science abstracts (LISA)

LISA is an abstracting service published by the Library Association, London. Emphasis is placed on the preparation of abstracts for periodical articles and conference papers, although a few are prepared for books and pamphlets. LISA grew out of Library Science Abstracts. LSA began its life in typescript form and was devised by R.N. Lock and his wife C. Muriel Lock to help students preparing for Library Association examinations. The LA was persuaded to take over the service as a quarterly publication in 1950 with the Locks as editors. H. Allan Whatley took over the editorship on a "private-time" basis in 1951 and guided the service through 18 years of steady development. In the late 1960's discussions between the LA and Aslib on how to make LSA more useful to information workers resulted in an agreement that Aslib would supply abstracts covering information science to the LA for an annual fee. Each issue consists of a sequence of abstracts, arranged in order of the Classification Research Group's Classification of Library and Information Science; an author index; and an alphabetical subject index compiled by chain procedure. The indexes are cumulated annually and published as a separate issue. Staff consists of the editor, an editorial assistant, an abstractor, a clerk/typist, and a half-time classifier. Abstracts for non-English language material are contributed by an outside panel of 50 librarian/abstractors who receive a fee for each abstract prepared. Aslib's contributions take up the time of approximately 1 1/2 members of staff. The 1969 and 1970 issues were produced by conventional hot-metal letterpress methods. Since 1971, composition has been carried out on electric keyboards and matter reproduced by offset photolithography. A 1973 study carried out by Aslib into the feasibility of an integrated information system covering library and information science included proposals for the application of computerised techniques to LISA. No action was taken on these suggestions. A five-year cumulation, 1969-73, of the indexes is being undertaken by Learned Information (Europe) Ltd. of Oxford, UK. A computer program will be utilised for the merging process and, in the subject index, rotated entries will replace the existing chain index entries. Circulation of LISA is 2,150 copies.

Source

Edwards, ". Library and Information Science Abstracts: a new service for librarians and documentalists. Library Association Record, 71 (2) February 1969, pp. 41-43.

Referativnyi Zhurnal, Section 59 - Informatika (RZI)

RZI is one of the series of abstracting services published within the wide-ranging Referativnyi Zhurnal (Abstract Journal) of the All-Union Institute of Scientific and Technical Information (VINITI), Moscow. It covers periodical articles, books, conference proceedings, reviews, patents, standards and unpublished manuscripts deposited with VINITI. The publication is intended for the broad spectrum of information workers defined as the employees of technical information agencies and bureaux, scientists and engineers working in research and development organisations, technical librarians, teachers in higher education, and post-graduate

students. RZI was first published in 1969 under the title Nauchnaya i Tekhnicheskaya Informatsiya (Scientific and Technical Information). The title Informatika (Informatics) was adopted in 1970. At first, six issues a year were produced; monthly publication was adopted in 1967. Each issue contains the following: a sequence of abstracts arranged under subject headings - a UDC number is given at the beginning of each citation but is not used for arrangement purposes; an author index divided into two sections, Cyrillic and Roman; a rotated alphabetical subject index generated by computer and utilising free indexing methods; and tables of contents covering both periodicals and non-periodicals. Cumulated, annual indexes are published in the twelfth issue of the year. Since 1967, an English language version has been published. This contains the sequence of abstracts and the two author indexes, but has no alphabetical subject index or tables of contents. Each main subject section of RZI is edited by subject specialists; many of the abstracts are prepared by named experts. User feedback is maintained through meetings organised by the Editorial Board and held in various towns throughout the USSR. A Descriptor Information Retrieval System in Informatics (DIPSI) has been operating since May 1970 based on all the abstracts published since 1963. It is used in two versions: (1) retrieval on 80-column punched cards using three-digit codes; (2) retrieval by the MINSK-22 computer. The development team is continuing its work. Circulation of RZI (Russian version) is 3,500 copies.

Sources

Editorials. Referativnyi Zhurnal: Informatics, (1) 1973, pp. 1-4 and (1) 1974, pp. 1-5.

A descriptor information retrieval system in informatics. Bibliography, Documentation, Terminology, (11) 1971, pp. 217-218.

Information science abstracts (ISA)

ISA is an abstracting service published by Documentation Abstracts Inc. under the sponsorship of the American Society for Information Science, the Division of Chemical Literature of the American Chemical Society, and the Special Libraries Association. ISA publishes abstracts for periodical articles, conference proceedings, monographs, standards, patents, reviews, and non-book material and is especially strong in its coverage of US report literature. The criterion for abstracting is the pertinence of the subject matter rather than the vehicle of publication. The service is intended primarily for persons working or studying in information science and documentation and for special librarians, but it is also aimed at librarians gnerally, educators and persons engaged in related activities, e.g., publishing, translating and technical writing. ISA commenced publication in 1966 as a quarterly under the title Documentation Abstracts. The present title was adopted in 1969 and in 1970 the frequency changed to six issues a year. Each issue consists of a sequence of abstracts arranged under broad subject headings, continuity data (see below), an anonymous titles index, and an author index. These indexes are cumulated and appear in the sixth issue of the year, together with an alphabetical subject index and a continuity index. Commencing with the December 1973 issue, the sixth issue of each year has been published in two parts in order to minimise delay in publication. Issue number 6B contains the indexes for the year. The continuity index of ISA is a unique feature. This is an annual chronological index in which a known abstract may be looked up by its serial number in order to identify any abstracts cross-referenced to it during the year. A letter-code included with each entry indicates the relationship between the abstract found and the abstract

previously known. The index has much in common with citation indexes. ISA's staff consists of the editor, supported by a paid editorial staff of two persons, and a number of abstractor volunteers. Originally, it was intended that ISA should make exemplary use of automated techniques, but the plan was never fully implemented through lack of resources. The March 1966 - June 1967 issues were produced by computer-aided photocomposition and an author index production program was completed. These techniques were discontinued after June 1967. A second attempt to introduce computerisation was made in 1970 using programs developed by Inforonics Inc. for Psychological Abstracts. The differences between the two publications proved, however, to be too large and the procedure was abandoned after one isse. Since the April 1970 issue ISA has been produced by perforated tape and photocompositor, with no automated sequencing or automatic index production. Circulation of ISA is 1,200 copies.

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Introduction to Volume 9. Information Science Abstracts, 9 (1) February 1974, pp. 2-3.

Lipetz, B. A. Information Science Abstracts. In: Encyclopedia of Library and Information Science, edited by Allen Kent, Harold Lancour, and Jay E. Daily. New York, Marcel Dekker, 1974, volume 11, pp. 487-494.

Computer and control abstracts, Chapter 8.5 (CCA)

CCA Chapter 8.5 is the only service in the present investigation which is not published as a separate. It is part of the INSPEC range which includes Science Abstracts and is published by the Institution of Electrical Engineers, London. CCA is included in the study for the following reasons: (1) in order to correlate the data obtained with Dansey's work in 1973; (2) to obtain data for a wholly English-language service that is part of a larger abstracting organisation; and (3) to gain some idea of the "outsider's" view of the subject content of the field. CCA is published every month and this section was started in its present form in 1969. Abstracts are arranged under the following subject headings: Information science and documentation; Information services and centres; Generation, dissemination and use of information; Publishing and reproduction; Translation; Information analysis and indexing; Information storage and retrieval. At the end of each subject section cross-references are made to related material within other subject headings of Chapter 8.5 and also to other chapters of CCA. Every issue of CCA includes an author index, a brief alphabetical subject index leading to the classification scheme, and the following "small" specialised indexes: bibliography index: book index; conference index; patent index; and report index. Cumulative versions of all these indexes are published for every six-month period, with titles added under each author's name in the author index and a greatly expanded, highly detailed alphabetical subject index. CCA is produced by computerised methods and Optical Character Recognition will be introduced in the near future. Spin-off services include Topics, an inexpensive SDI listing based on standard profiles; individually-tailored SDI; and the magnetic tapes available for the whole range of INSPEC publications.

Sources

Computer and Control Abstracts. Inside cover material.

Bulletin Signalétique, Section 101 - Science de l'Information Documentation (BS)

BS Section 101 is part of the large Bulletin Signalétique service published by the Centre National de la Recherche Scientifique, Paris. Abstracts are prepared for periodical articles, conference proceedings, books, technical reports, theses, patents and standards. Publication commenced in 1970 under the title Information Scientifique et Technique. The present title was adopted in 1972. There are ten issues a year. Each issue contains a sequence of abstracts, a list of theses and reports deposited in the library of the CNRS, a list of publications received, a small section of news items, and indexes. Abstracts are arranged under subject headings and the following indexes appear in each issue: an author index; an alphabetical subject index in three sections - permuted index in French, permuted index in English and the Index des Travaux d'Auteurs Français et Francophones classés par domaines, an index, by subject, of work carried out by French authors and workers in any French organisation. The indexes are cumulated annually and appear as a separate issue. The editor of section 101 is guided by an editorial committee and there is also a team of advisers for each of the main subject sections. Since 1971 BS has been produced by computer-aided typesetting and photocomposition using the PASCAL system (Programme Appliqué à la Sélection et à la Compilation Automatiques de la Littérature). This system is also used for SDI and retrospective searching. The abstracts are not signed and are, at times, very brief. However, those published in the first issues of 1974 tend to be longer than the entries that appeared in 1970. Circulation of section 101 is 1,500 copies.

Sources

Centre National de la Recherche Scientifique. P.A.S.C.A.L. Bulletin Signalétique 1974 Plan de classement: Supplément annuel au Bulletin Signalétique, Section 101.

d'Olier, J.H. and Dusculier, N. Bulletin Signalétique mechanisation - the PASCAL system. Program, 5 (4) October 1971, pp. 228-238.

CHAPTER 3

ORGANISATION OF THE PRESENT STUDY

The main emphases in this survey are: (1) to isolate similarities and differences between the services; (2) to obtain as much "raw" data as possible; and (3) to attempt some estimation of primary material covered by the services.

METHOD

It was felt that the investigation should concentrate on providing information about the recent development of the services. Our field is changing rapidly - nothing characterises this more than the fact that the Big Four abstracting services have all changed their titles in the last five years - and what was true even two years ago might not be so today.

The method adopted, therefore, was to concentrate on analysing the 1973 issues of all the services in order to record details of the primary material covered. Each citation was examined. The main breakdown of the statistics obtained was made into: (1) entries for periodicals; and (2) entries for non-periodical material. Further analyses were made under the titles of journals and the type of non-journal material. The dates of the periodicals covered were recorded and, in many cases, a note was made of the actual titles of books and conference proceedings.

Where possible, statistics given by the services themselves have been used to check the accuracy of the figures obtained. However, internal statistics are obviously intended for the benefit of the services and, in some instances, the data compiled for this survey appeared to be more "correct" within the circumstances of the investigation. They have, therefore, been adopted in the present report and the figures given here do not necessarily match those compiled by the services.

The counting of citations at this intensity is an arduous task and the acknowledgements made at the beginning of this survey are well merited.

CHAPTER 4

SOME BASIC STATISTICS

This chapter contains a few basic statistics in the form of diagrams and tables. Commentaries are given, where necessary, immediately following each figure.

19

Figure 1 AMOUNT OF PRIMARY MATERIAL COVERED SINCE 1969

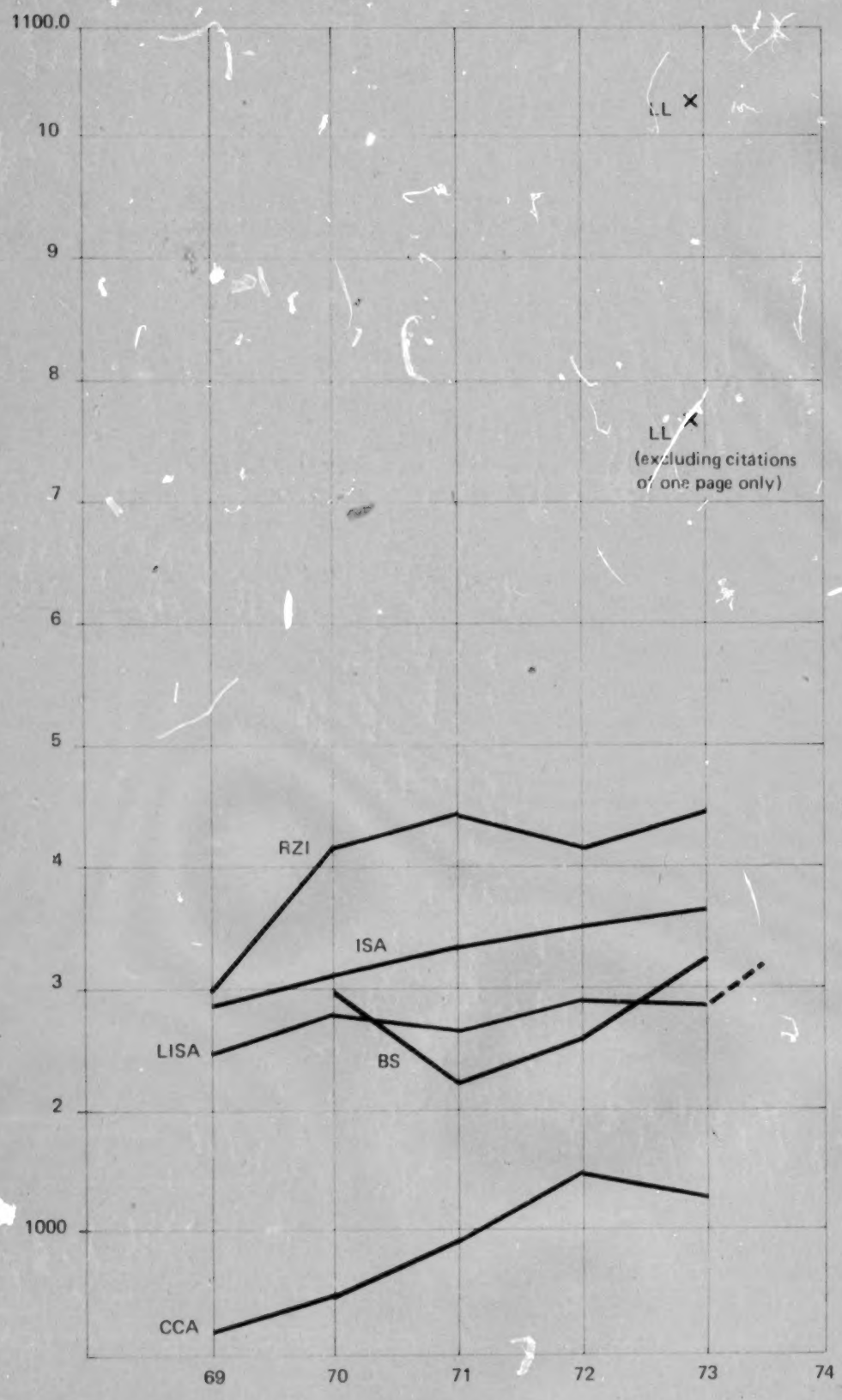

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Figure 1: Primary Material Covered by the Services since 1969

RZI clearly emerges from the graph as by far the largest abstracting journal in our field - a big gap opened up between this service and the others in 1970 when the title Informatika was adopted and this may reflect a change in the internal policy of VINITI. Steady growth has been shown by ISA over the five-year period and the American publication has maintained its position as the biggest Western service. BS and LISA are the most nearly equal in size of the services. However, BS has grown over the last two years whilst LISA has had its ups and downs. One's feeling is that the British service has been a little underpriced and steps taken to counteract this in 1974 may well result in the expansion of this service. This is shown by the dotted projection for 1974. CCA stopped its rate of growth for the first time in 1973.

The total primary literature in library and information science available during this period is unknown. Estimates have been made ranging from 6,000 items to 10,000 items published per year (see the following sources).

Taylor, L.J. Library science literature. In: British Librarianship and Information Science 1966-1970, edited by H.A. Whatley, London, Library Association, 1972, p. 295.

Taylor, L.J. Library science literature: some problems of information about information. Aslib Proceedings, 23 (9) September 1971, p. 474.

Könyvtari Figyelő (1) 1969, pp. 99-100.

Figure 2 NUMBER OF ABSTRACTS PUBLISHED BY THE FIVE ABSTRACTING SERVICES - 1973

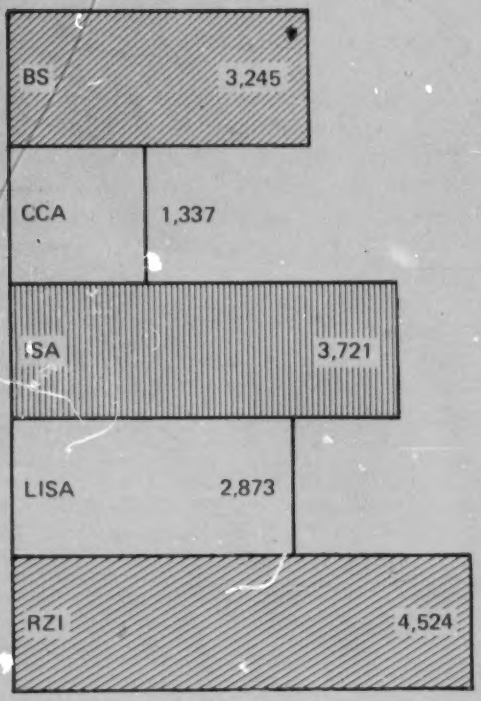
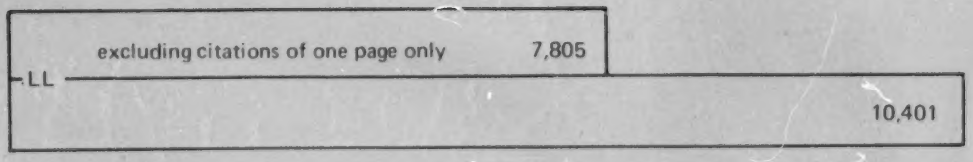


Figure 3 NUMBER OF ENTRIES PUBLISHED BY LL - 1973



Note: The LL figures have been compiled from a count of the author entries in the 1973 issues.

Figure 3: Number of Entries Published by LL

Difficulties were encountered in the attempts to estimate the amount of material covered by LL in 1973. Suitable figures were not available from the Wilson Company and so it was decided to count the number of entries made under authors's names. The problems can be summarised as follows. (1) When making entries for book reviews and follow-up items such as letters, LL's practice is to cite the original item again. Without carrying out extensive checks it is often difficult to know whether an item is being cited for the first time or not. This factor probably led to some over-estimates. (2) LL's dictionary arrangement makes it difficult at times to distinguish the author entries. (3) The large size of the service and the closely-packed layout of the pages together with the necessity of completing the count as quickly as possible undoubtedly caused problems of fatigue.

The probability is that all the figures given for LL are too large. Partial checks have been possible on the bases of previous estimates and on the data extracted for this survey.

In the Journal of Documentation, March 1972 (pp.63-64) Coblans remarks of LL, "With its coverage of 159 periodicals (August 1971) it produces over 5,000 references, including many books, reports, etc." The number of periodicals covered by LL had increased by 1973 to 221 so it is likely that more items were indexed than in 1971.

For the periodical articles, sufficient data were extracted during the present survey to enable the older, obviously repeated, items to be deleted at the end of the count. The figure of 5317 for periodical items, which excludes citations of one page only (see Table 1) is probably not far out.

The likely over-estimate made for LL is in the number of non-periodical items covered. A count of the "Checklists of monographs cited for the first time" given in every issue of the service shows that 958 new, separate publications were covered in 1973. This figure includes a number of collective books, conference proceedings, etc., some of which obviously generated a large number of entries (e.g., several American Society for Information Science conferences were indexed). However, it is doubtful whether as may as 1,400 extra entries would have resulted from these collective works and perhaps the non-journal coverage of LL in 1973 was below 2,000.

In the calculations made in other sections of this report, efforts have been made to allow for possible over-estimation of LL's coverage.

Table 1: Coverage of Periodical and Non-periodical Literature by the Six Services - 1973

	BS		IZI	
	Abstracts	Percentage	Abstracts	Percentage
Periodicals	2124	65%	3266	72%
Non-periodicals	1121	35%	1258	28%
Total	3245	100%	4524	100%

	CCA		IISA	
	Abstracts	Percentage	Abstracts	Percentage
Periodicals	1068	80%	2512	87%
Non-periodicals	269	20%	361	13%
Total	1337	100%	2873	100%

	ISA	
	Abstracts	Percentage
Periodicals	1537	41%
Non-periodicals	2184	59%
Total	3721	100%

	LL	
	Entries	Percentage
Periodicals	5317	51%
Non-periodicals	2488	24%
Citations with one page only	2596	25%
Total	10401	100%

Table 1: Coverage of Periodical and Non-periodical Literature

There are two pairs of services approximately equal in their approaches to the types of primary material available. CCA and LISA concentrate on the periodical literature, neglecting monographs and reports whilst BS and RZI are more even in their approaches to periodicals and non-periodicals. The percentage figures for LISA have remained almost constant since 1969.

RZI publishes by far the largest number of abstracts for periodical articles and ISA holds as dominating a position for the non-periodical material. It is tempting, on the basis of these figures, to speculate on the kind of service that would result from a merger of RZI's periodical coverage and ISA's monograph/report/conference proceeding entries. It is reasonably certain, on the basis of the present investigation, that for full coverage of the primary literature many additional entries would still be necessary from BS and LISA. The following figures will, however, give every secondary service editor and publisher food for thought:-

RZI periodical coverage (1973)	3266
ISA non-periodical coverage (1973)	2184
Total	5450

This 5,000-plus figure for the amount of material which might be covered by our secondary services every year is reinforced by the figures given for LL which were arrived at by a count of the author entries in the 1973 issues. Of course, LL is an indexing service and contains entries for material that need not be covered by the abstracting services. Some allowance was made for this by recording items with only one page as a separate category, but it is no doubt true that there are still many items in LL that no one would expect to find in an abstracting service. However, the size of the figure is rather daunting, particularly when it is remembered that LL restricts its scope fairly rigidly to traditional library science and is also very much American/English-language oriented.

Table 2: Number of Periodical Titles Covered by Each Service

	1973	[Volkova* 1970]
BS	320	[389]
CCA	177	[-]
ISA	247	[253 (1969)]
LISA	210	[411]
LL	221	[-]
RZI	331+	[554]

Notes

* Extracted from Volkova's previously cited article. For full bibliographical details see Chapter 1, reference 11.

\+ Contains an estimate of 40 titles. See commentary following this table.

Table 2: Number of Periodical Titles Covered by Each Service

The surprising feature of this table is the relatively low number of titles given for BS, LISA, and RZI in comparison with previous surveys. The reason for this is that the 1973 figures were compiled by checking the actual titles cited during the year. It is known that the lists of periodicals given by the services do not present a true picture of their treatment of this type of literature. For example, LISA's list includes all the periodicals scanned for potentially useful material and so individual titles, particularly in the fringe areas, may not be abstracted in a single year's issues. Both LL and RZI publish incomplete lists of their titles including only the main periodicals covered. With these strictures on the published lists in mind, it was decided to extract data for the periodicals by examining each citation published during 1973.

Unfortunately, for RZI, this approach raised several problems; these were not completely solved and the figure marked with a "+" sign in the table must be treated with caution. The investigation of RZI in the present study took place mainly by analysing the English language version. It is a measure of the difficulty of this service for the non-Russian-speaking user that, in some cases, defeat had to be admitted in the deciphering of citations.

RZI's practice of citation presents two problems: (1) for the non-Russian-speaking user, there is the difficulty of understanding citations in Russian because they are not transliterated - a "pattern recognition" approach tends to break down because of the hyphenation procedures adopted at the end of a line; and (2) abbreviations are widely used which leads to a compounding of the Russian problem and also creates difficulties for the relatively little known Roman-language titles, particularly those that do not appear on the RZI list.

These difficulties were partially overcome by using the list of periodicals showing the number of citations for 1973 published in the first issue of 1974. Once again, however, this list is not complete - it omits the low-citation material and even within the levels covered (titles cited three times and above) the present investigation discovered further titles.

In the time available for this study it proved impossible to solve these problems completely and the following number of citations remained unidentified at the end of the count:-

Unidentified Russian language citations	98
Unidentified Non-Russian and Non-English citations	157

It was decided to estimate the number of titles at 15 titles for the Russian language citations and 25 for the Non-Russian, Non-English. These figures might be on the low side, judging by Volkova's 1970 data, but it is doubtful whether the service exceeded, say, 370 periodical titles in 1973.

A reading of a translation of Volkova's article held in the LISA office does not make clear the methods employed for compiling the 1970 figures. Presumably, the lists published by the services were used as the basis and it seems that comparisons between the services should no longer be carried out in this manner, particularly for LISA and RZI. It is probably true that ISA's list over the years has always reflected its coverage more accurately than those of the other members of the Big Four. With the development of the computerised system PASCAL, ES now publishes a print-out analysis of the material covered each year as a separate, entitled Périodiques et Ouvrages analysés en / année /. This practice demonstrates the benefi-

cial side-effects of computerisation - such analyses are virtually impossible in a practical working situation using manual counting methods.

Table 3: Relationship between Periodical Titles Covered and Number of Abstracts Published - 1973

	Periodical Titles	Number of Abstracts from these Titles	"Average" per title
BS	320	2124	7
CCA	177	1068	6
ISA	247	1537	6
LISA	210	2512	12
LL	221	7913 [entries]	(36)
RZI	351*	3266	10

*Note

Includes an estimate of 40 titles. See discussion in the commentary after Table 2.

Table 3: Relationship between Periodical Titles Covered and Number of Abstracts published

The "average" figure is intended simply as shorthand for the emphasis placed by each service on the periodical literature. It also demonstrates the "compactness" of each service's approach to the subject with LISA and LL covering many articles from a relatively small number of titles and ISA and BS ranging more widely for material and finding fewer relevant items in the titles covered. RZI once again has an impressive amount of material - the largest number of articles as well as the la largest number of titles. However, the "average" figure, below that of LISA, indicates a possible straining at the boundaries of information science (see further discussion in Chapter 5, passim).

The figures for LL in this table have been added for interest only - they cannot, of course, really be compared with those for the abstracting services.

		BS	CCA	ISA	LISA	LL	RZI
English	Number of titles	135	111	171	145	192	145
	% of Total titles covered by the service	42%	63%	69%	69%	87%	44%
German	Number of titles	41	23	9	14	5	35
	% of Total titles covered by the service	13%	13%	4%	7%	2%	11%
French	Number of titles	65	8	12	9	4	18
	% of Total titles covered by the service	20%	4%	5%	4%	2%	5%
Russian	Number of titles	18	5	22	5	3	40*
	%of Total titles covered by the service	6%	3%	9%	2%	1%	12%
Other	Number of titles	61	30	33	37	17	93+
	% of Total titles covered by the service	19%	17%	13%	18%	8%	28%

Notes * This figure includes an estimate of 15 titles that could not be identified.
\+ This figure includes an estimate of 25 titles that could not be identified.
See commentary after Table 2.

Table 4: The Main Languages of the Periodical Titles Covered by Each Service - 1973

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Table 4: The Main Languages of the Periodical Titles

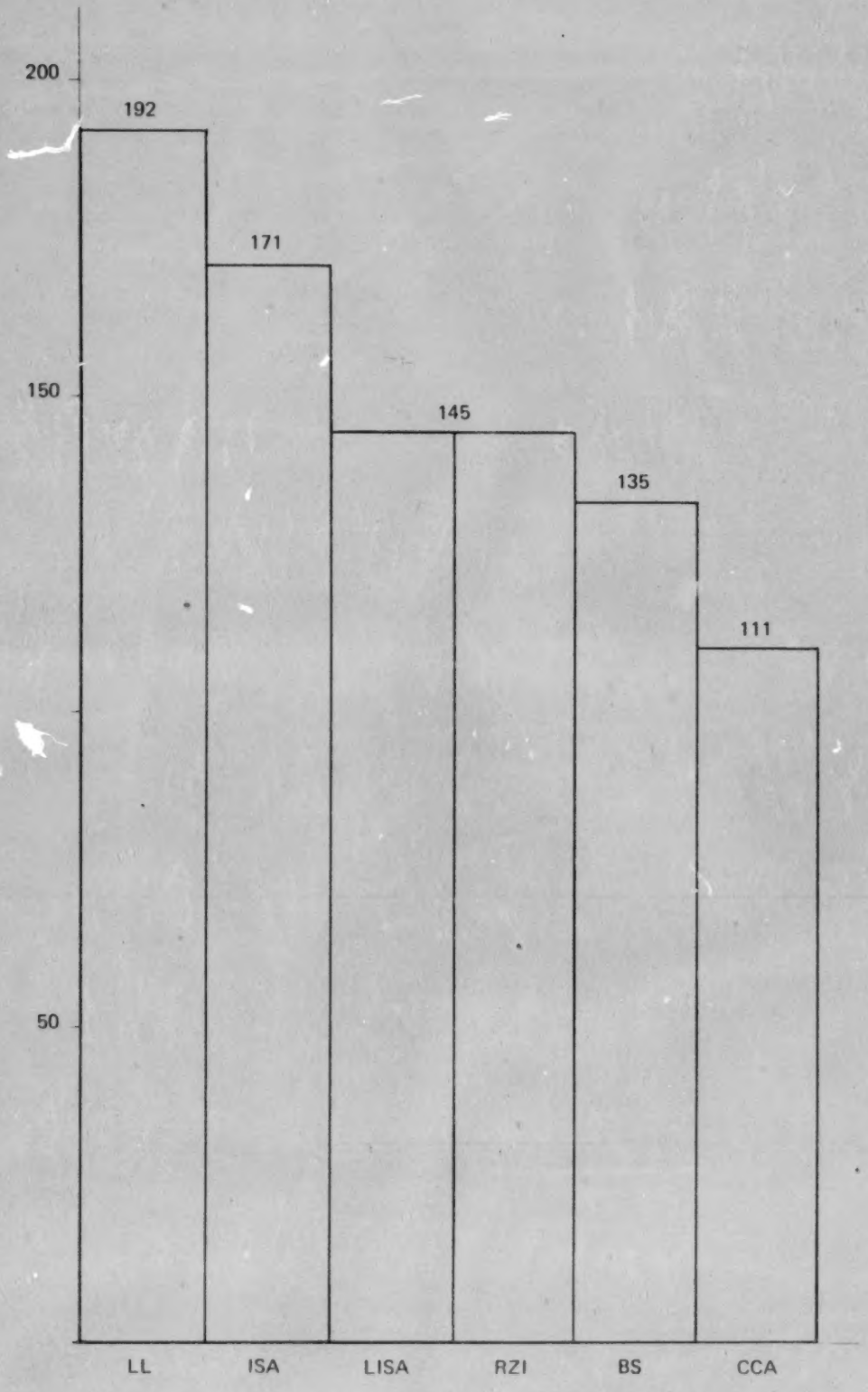
This table demonstrates the dominant position of English with the other languages a long way behind. The coverage by BS has a noticeable effect on French language material - if BS did not exist French would be a minor language in our field. German material received solid coverage from BS, CCA and RZI. The position of Russian is probably affected by the considerations mentioned in the commentary following Table 2. Even so, Volkova's work on the 1970 issues of RZI showed that only 11.5% of the service's abstracts were made for Russian language material compared with 12%.

The figures for LISA's coverage of Russian material are very low and should be rather nearer to ISA's for satisfactory coverage.

LL's coverage of non-English language material is minimal and indicates that the abstracting services have a role in providing brief entries for the shorter non-English items.

Figure 4

COVERAGE OF ENGLISH-LANGUAGE PERIODICAL TITLES BY EACH SERVICE - 1973



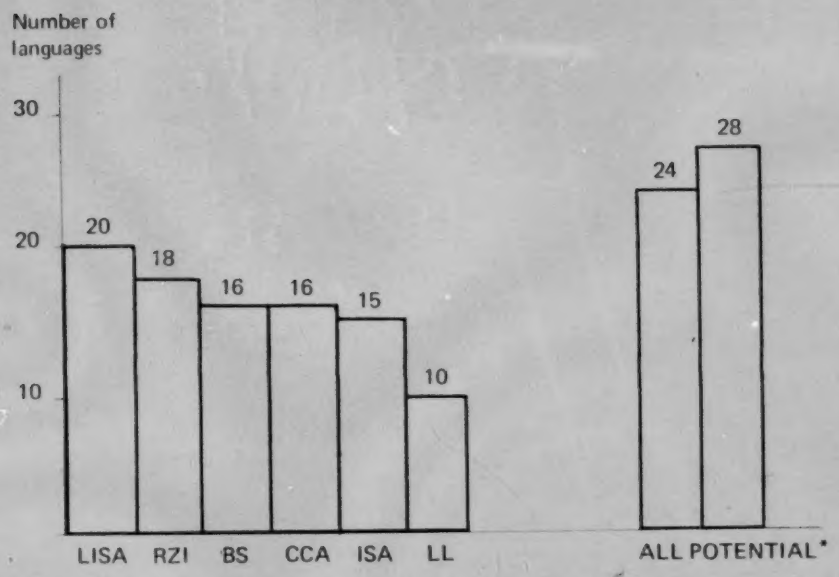
Note: The source for the above chart was an examination of the citations in the 1973 issues of each service.

Table 5: Language Breakdown of the Periodical Titles Covered by the Services Excluding English, French, German and Russian - 1973

	BS	CCA	ISA	LISA	LL	RZI
Bulgarian	1	-	-	1	-	1
Chinese	-	-	-	1	-	-
Czech	-	4	3	4	-	10
Danish	-	-	-	1	1	1
Dutch	-	3	-	2	-	5
Finnish	-	-	-	1	-	-
Hebrew	1	1	-	-	-	-
Hungarian	3	2	2	2	1	3
Italian	13	3	2	4	5	3
Japanese	2	-	4	4	-	6
Lithuanian	1	-	-	-	-	1
Norwegian	-	1	-	1	-	-
Polish	4	4	13	2	2	13
Portuguese	2	-	1	1	-	3
Romanian	4	2	2	2	-	3
Serbo-Croat	2	-	-	-	-	-
Slovene	-	1	1	1	-	3
Spanish	4	1	2	3	2	4
Swedish	1	3	1	4	4	1
Turkish	-	1	1	-	-	-
Polyglot	6	4	1	3	2	3
Language Unknown	17	-	-	-	-	31

Figure 5 NUMBER OF LANGUAGES COVERED BY THE SERVICES

1973



* Based on the languages of periodicals received regularly in the British Library/ Library Association Library

VOLKOVA 1970

	Number of languages
RZI	26
LISA	23
ISA	18
BS	16

Figure 5: Number of Languages Covered by the Services

The chart has been compiled by scanning each citation given in the 1973 issues of the services. Coblan's background paper to the 1972 Unesco Symposium of Editors (p. 17) gave an estimate for periodicals in our field of 27 different languages of publication including four (Arabic, Korean, Malagasy and Persian) not covered at all by the services in 1973. LISA has made attempts since 1969 to cover the Korean Library Association's Journal, but advertisements for a suitable abstractor have been unsuccessful.

CHAPTER 5

SUBJECT ARRANGEMENTS OF THE SERVICES

This chapter outlines the manner in which entries are arranged in the services, i.e., the subject categories employed for the main sequences. (Alphabetical subject indexing of the services is discussed separately in Chapter 10). LL, as an indexing service, is difficult to compare with the subject arrangements of the abstracting services and it is treated separately at the end of the chapter.

Four of the five abstracting services arrange their abstracts under subject categories expressed in words. The exception is LISA which uses a faceted classification scheme. In order to make some comparison possible, the verbal feature headings printed in each issue of LISA have been used in the following discussion.

Tables 6-10 give a breakdown of the number of abstracts entered under the broad categories of each service during 1973.

Category	Number of Abstracts	Percentage of Total Abstracts
Science de l'information, étude d'ensemble	1097	34 %
Bibliothéque et centres de documentation	627	19.5%
Systèmes documentaires	201	6 %
Sources d'information	394	12 %
Problèmes d'édition	64	2 %
Reprographie	88	3 %
Traduction	46	1 %
Lecture optique et reconnaissance de la parole	45	1 %
Analyse de l'information	383	12 %
Stockage, recherche et diffusion de l'information	252	8 %
Aspects informatiques	48	1,5%
	3245	100 %

Table 6: BS Abstracts by Subject Categories - 1973

Table 6 : BS Abstracts by Subject Categories - 1973

Category	Number of Abstracts	Percentage of Total Abstracts
Information Science and Documentation	128	10%
Information Services and Centres	371	28%
Generation, Dissemination and Use of Information	130	10%
Publishing and Reproduction	85	6%
Translation	21	1%
Information Analysis and Indexing	213	15%
Information Storage and Retrieval	389	29%
	1337	100%

Table 7: CCA Abstracts by Subject Categories - 1973

Table 7: CCA Abstracts by Subject Categories - 1973

Category	Number of Abstracts	[Volkova 1969]	Percentage of Total Abstracts	[Volkova 1969]
Information Science - Documentation	436	[335]	12 %	[12.7%]
Information Centers and Libraries	740	[526]	20 %	[20 %]
Specialised Information Services and Systems	568	[393]	15.5%	[14.8%]
Information Generation, Dissemination, Collection	293	[234]	8 %	[8.9%]
Information Publishing and Reproduction	150	[160]	4 %	[6.1%]
Information Identification and Translation	155	[76]	4 %	[2.9%]
Analysis of Information	380	[327]	10 %	[12.4%]
Storing and Retrieving of Information	274	[316]	7 %	[12 %]
Utilization of Information	74	[48]	2 %	[1.8%]
Supporting Research	645	[223]	17.5%	[8.4%]
Continuity Data	6		-	
	3721		100 %	

Note The figures given in the Column, "[Volkova 1969]" are from the previously cited article by Volkova. See Chapter 1, reference 11.

Table 8: ISA Abstracts by Subject Categories - 1973

Table 8: ISA Abstracts by Subject Categories - 1973

Category	Number of Abstracts	Percentage of Total Abstracts
Librarianship	289	10 %
Education (Professional)	181	6.5%
Libraries and Special Categories of Users	512	18 %
Use of Libraries and Library Materials	90	3 %
Library Stock and Materials	211	7 %
Organisation and Administration	425	15 %
Information Work	472	16 %
Technical Processes and Services	178	6.5%
Information Storage and Retrieval	379	13 %
Fringe Subjects	136	5 %
	2873	100 %

Table 9: LISA Abstracts by Subject Categories - 1973

Table 9: LISA Abstracts by Subject Categories - 1973

Category	Number of Abstracts	[Volkova 1970]	Percentage of Total Abstracts	[Volkova 1970]
General Section	671	[546]	15%	[12.9%]
Documentary Sources of Information. Information Analysis	416	[317]	9%	[7.5%]
Scientific Translation	27	[13]	-	[0.3%]
Automatic Translation	276	[219]	6%	[5.2%]
Information Retrieval	623	[1264]	14%	[29.6%]
Information and Library Services	421	[-]	9%	[-]
Technical Tools for Information and Library Work	1108	[1194]	25%	[28.2%]
Organisation of Information and Library Activities	982	[691]	22%	[16.3%]
	4524		100%	

Note The figures given in the Column "[Volkova 1970]" are from the previously cited article by Volkova. See Chapter 1, reference 11.

Table 10: RZI Abstracts by Subject Categories - 1973

Table 10: RZI Abstracts by Subject Categories - 1973

Commentary on Tables 6-10

The subject categories used by BS, CCA, ISA and RZI all reflect the concentration of these services on information science. However, except for CCA, they all have a category which includes libraries. LISA's subject list reflects a strong interest in library science, although, again, the intertwining of the field is clear with 29% of the abstracts entered under the two categories, Information Work and Information Storage and Retrieval.

Within RZI's largest category, Technical Tools for Information and Library Work, it is interesting that 377 entries are for documentary reproduction equipment. The same service also carries a number of very long abstracts for automatic and scientific translations:

	Translation category	
RZI	303	6%
BS	46	1%
CCA	21	1%
ISA	33	-
LISA	6	-

These factors begin to show why RZI is such a large service. It is not so much, perhaps, that there is a hidden lode of library and information science literature in the USSR, but that the Russian view of the field's scope is rather different from the approach in Western Europe and the USA (the latter also differ in their emphases). RZI might be about 550 entries smaller if these points are taken into consideration bringing it much closer in size to the other services.

A disturbing aspect is that, as discussed in the previous chapter, informed opinion from both East and West considers there is a large amount of uncontrolled literature well in the centre of our field.

Listing the different sets of subject categories for the services is one thing - the way in which material is entered in those categories is another. The problem arises of how subject analysis is carried out in the different services. For example, at first sight the ISA category "Information Science - Documentation" appears to be equivalent to the BS "Science de l'information, étude d'ensemble". Closer investigation shows, however, that the categories are used in different ways with ISA entering only 12% of its abstracts at this point, whilst BS arranges no less than 34% of its entries under the category.

A cursory check of a few of the more specific categories in each service, e.g., cataloguing, indicates a reasonable amount of agreement on the entry of abstracts, but the whole question of matching the subject categories used by the services is full of pitfalls.

If, as seems likely, it is necessary for users to consult all the services in order to be certain that they have missed nothing of value, the different philosophies of subject arrangement are an obvious barrier. For the producers, if agreements on the exchange of material could be made, it would be advantageous if subject analyses (the most costly part of subject work) were carried out only once.

It is, perhaps, far too early to think about any standardisation of subject approaches to our field, but editors of secondary services might take some tentative steps by considering the work now being carried out at the Polytechnic of North London School of Librarianship on the compilation of an intermediate lexicon (or switching language) for information science. Some details about this work are supplied in an appendix to this chapter, reprinted by kind permission of Verina Horsnell.

Subject arrangement of library literature

Subject entries in LL are made directly under headings arranged alphabetically and inter-filed with references and author entries in one sequence. Control of the headings is achieved by a printed subject heading list. This contains a list of headings used and indicates appropriate places for see and see also references and also when geographical sub-division is permissible. A list of form sub-divisions precedes the main sequence of headings.

It would be an extensive task to categorise LL's subject entries to obtain data for comparison purposes and the job has not been attempted in the present study.

The dictionary principle of arrangement is obviously worth employing in an indexing service and the users of LL have had the opportunity to become familiar with the pattern of entry over many years of publication. A curious effect of this arrangement is to make it very difficult to conduct searches for material connected with a geographical area - perhaps consideration could be given to providing some entries directly under the names of countries.

APPENDIX TO CHAPTER 5

THE POLYTECHNIC OF NORTH LONDON SCHOOL OF LIBRARIANSHIP
INTERMEDIATE LEXICON RESEARCH PROJECT

INFORMATION LEAFLET NO. 1 December 1971
(Interlex IL1)

National and International Cooperation

One of the results of the information explosion is a growth in the number of centres handling information. Many of these centres concentrate in a fairly specific field, often one that has emerged only recently. It is likely that several centres, especially if not situated in the same country, will often specialise in the same or largely overlapping subject areas. This will give rise to a certain, perhaps considerable, amount of duplication. For example, the same documents may be scanned, and the same articles abstracted and/or indexed, while many of the unpublished reports and lesser known or local publications will be lost. If this duplication is reduced each centre could concentrate on obtaining the more obscure items originating from within its own area, or country.

Considerable attention has been given to the methods by which exchange of subject information may be facilitated. One obvious solution, that of introducing standard indexing schemes, for certain subject areas is largely unacceptable, because centres prefer to use their own schemes which have been developed to suit their particular needs.

The other solution is to develop a method for allowing conversion between existing indexing schemes. There are several ways of achieving this. A concordance of equivalences could be constructed between pairs of indexing schemes covering a given subject area. One extension of this idea is to build up at each centre a total list of all indexing terms used by all the centres specialising in a field which would then be integrated into the indexing scheme at each centre.

Another method requires the development of a mediating language, which would be independent of the indexing schemes, but allow conversion between them. It is the feasibility of this method which is the subject of this study.

The intermediate lexicon

An intermediate lexicon is a tool which will allow exchange of subject information between centres using different indexing schemes. Such a lexicon is under construction for the field of information science, where cooperation in the form of information exchange would be immediately useful. Moreover the terminology of the field presents several difficult problems. Ideally the lexicon would contain all the concepts covered by the indexing schemes used by centres concentrating on information science. A concordance of equivalences of terms would be constructed between each of the schemes and the lexicon. Hence when a document is indexed, the equvalent lexical term may be assigned, possibly at the same time, from these equivalence tables. In a working situation the subject information in lexical form from any one centre may thus be transmitted to the other centres exchanging information in a given field where it can be converted via the appropriate equivalence table into terms of the indexing language at each receiving centre.

The project

An intermediate lexicon exists in outline form, as the result of work by an international working party which met at Marseilles in 1965 and 1968 at the instance of the Groupe d'Etude de l'Information Scientifique (G.E.I.S.). This outline, of which there is an English translation by Coates and Weeks, will be developed to a stage where its performance as a switching tool under various conditions can be evaluated.

There are in existence several types of indexing language, such as classifications, thesauri and unstructured keyword lists. Some are designed to be used in the pre-coordinate mode, some in the post-coordinate mode, and some may be used in either. These languages may vary in vocabulary size from about 200 to over 2,000 terms.

It is also accepted that there will be inter and intra indexer inconsistencies when a particular indexing task is repeated, and also in this case when equivalence tables are prepared.

A series of tests have been designed to investigate the effects of these variables on the performance of the lexicon in a switching mode.

The experiments

A representative group of these languages will be chosen for use in the feasibility study. The group will include a classification, a thesaurus, a language with a small vocabulary, etc.

One of the indexing languages (language A, say) will be used as a control in the set of experiments. A set of 500 documents representative of the field of Information Science will be indexed using language A. Calling the other languages in the group B, C, etc., the documents will then be indexed using one of them, language B,say. The index entries for each document will be transformed into lexical terms via a specially constructed table which gives equivalences between the terms of B and terms of the lexicon. A second table giving equivalences between the lexical terms and those of language A will be used to further transform the index entries into language A.

At this stage we have two sets of entries in language A, one indexed directly in A and the other indirectly, from language B, and they will be examined for discrepancies. The documents will also be indexed in languages C, D, etc., transformed by the same method into language A and also examined for discrepancies.

One set of tests is also designed to show the effect of varying the indexer, all other variables being held constant.

The discrepancies will be analysed, and it is hoped that the results will give a measure of the effectiveness of the intermediate lexicon under a variety of conditions.

Conclusion

The relevance of research into converter mechanisms is not limited to the field of information science. It could be of use in many fields where work on international cooperation is in progress, and of course once the potential of the Intermediate Lexicon has been demonstrated, it would greatly facilitate the exchange of information between documentation centres.

References

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The Intermediate Lexicon for Information Science (IL)

An Intermediate Lexicon is a device which will facilitate the exchange of index entries to documentary material between information centres with a common interest. The Intermediate Lexicon acts as a switching mechanism to translate the indexing decisions made using one indexing language, via the Intermediate Lexicon, into equivalent decisions in other indexing languages covering the same, or largely overlapping subject area.

In essence, the Intermediate Lexicon incorporates all the indexing concepts present in each of these indexing languages for which it is required to switch indexing entries.

Intermediate Lexicon Structure

These concepts were structured for ease of use and to avoid the necessity of lengthy definition. A classificatory approach using faceted principles was chosen as providing a suitable structure, and in Phase I of the Project an Intermediate Lexicon was constructed which consisted of some 1,000 entries organised in strict facets, where each concept was uniquely located.

In order to allow maximum flexibility with a minimum of vocabulary, an important feature of the Intermediate Lexicon is the ability (inherent in any faceted classification) to synthesise concepts:

For example:

Selection appears primarily under general operations at 3.514

It may also be required in a more restricting context, e.g., in "Selection of documentary materials",

and can be synthesised under Operations on documentary materials,

10.000 DOCUMENTARY MATERIALS
10.005 (context)
°
°
°
10.060 (characteristics)

10.155 [Operations] = 10.000:3.450
(Physical/organisational primarily)

[selection] = 10.155:3.514

as will be noted "operations on documentary materials" is also synthesised. Synthesised terms appear in square brackets.

Coupled with the ability to synthesise by compounding terms from different facets are role designators and specifiers.

For example a role designator can be employed to synthesise a product from the operation which produces it.

> Abstracts = Abstracting (Op → Pd) 9.810(3.866)
>
> where 9.810 represent abstracting and (3.866) indicates the role designator which changes an operation into a product.

Complementary to the role designators is a device which allows any concept in the lexicon to be used as a specifier.

> Taking the example of small books, small is used as a specifier to qualify books, and can be obtained as follows:
>
> small (as a specifier) = small (sp.g) 3.038(3.902)
> where (sp.g) is a general specifier
>
> small books then becomes 8.155:3.038(3.902)
> where 8.155 is the notation for books.

The terms have been given a simple ordinal notation, designed solely to facilitate handling.

Testing the Intermediate Lexicon

Once constructed the Intermediate Lexicon was tested by using it to translate indexing terms in one indexing language into indexing terms from a second indexing language. Tables of equivalences were constructed between each indexing scheme used and the Intermediate Lexicon, to reduce inconsistency and allow for mechanical translation of the concepts (i.e. by simple, clerical reference to the Intermediate Lexicon, without reference either to the indexed document concerned or the two index languages concerned). Documents were indexed and the indexing sets obtained after switching were compared with indexing achieved directly.

Comparisons were made for indexing schemes of different structure, vocabulary size, specificity and normal mode of use (i.e., pre- or post- coordinate).

The schemes included:

Thesaurus for Librarianship, and Information Science,Services,and Systems. Compiled by Charles L. Bernier. 15th Edition, May 1971. (An American thesaurus of 650 preferred and 300 non-preferred terms, designed for post-coordinate use).

Thesaurus of Information Science Terminology, by Claire K. Schultz. (Revised Edition), 1968. (An American thesaurus of 340 preferred and 900 non-preferred terms, designed for post-coordinate use).

A Compressed Term Index Language for Library and Information Science. Compiled by Alan Gilchrist and Kathleen Gaster (Aslib Research Department), with amendments by E. Michael Keen and Jeremy Digger (College of Librarianship Wales, Aberystwyth). (A British list of 350 preferred and approximately 2,300 non-preferred terms, designed for post-coordinate use).

A Classification and Thesaurus of Library and Information Science. By Ruth Daniel and J. Mills, with the assistance of R. Selwood, for The Classification Research Group, London. London, School of Librarianship, The Polytechnic of North London, 1972. (A British classified list of approximately 2,000 entries, designed for pre- or post-coordinate use).

For purposes of the project the schemes are referred to as Bernier, Schultz, Aslib and CRG respectively.

Results

Results showed that the switching success rate varied according to the pairs of schemes used and their different characteristics. The table below gives percentages compared with switched and unswitched sets.

Table 1

Switching performance

	Success compared with Direct Indexing	Success compared with Indirect (switched) Indexing
Bernier to Schultz:	69%	74%
Aslib to Bernier:	43%	35%
Bernier to CRG:	42%	46%
Performance of these terms used in citation strings:	55%	
CRG to Bernier:	52%	69%

The reason why two percentages are shown is as follows:

For each test the documents are indexed twice from the same concept analysis, once using indexing language A and once using indexing language B. It is possible that the two sets will not contain the same number of terms. Suppose set A is switched via the Intermediate Lexicon into language B:

	index language	index terms
indexing in:	A	A, B, C, D, E
after switching into:	IL	(A) (B) (C) (D) (E)
" " "	B	a, - c,f, d, e
direct indexing in:	B	a, - c,- d, -,g,h,i,j

The indirect set contains 5 terms, the direct set contains 7 terms and the number of terms common to both is 3. (a.c.d.).

Expressed as a percentage, this becomes
43% of the direct indexing and
60% of the indirect indexing.

To determine the underlying reasons for the proportions of mismatches in each of the cases, and to assess the possible causes, a failure analysis was undertaken. This analysis of failure allowed a number of provisional assertions to be made regarding the problem of switching.

Where languages vary widely in size of vocabulary the difference in specificity (and possibly exhaustivity also) are a serious source of discrepancy.

It may be noted that, if one language has a vocabulary of 200 terms, say, and another has a vocabulary of 1,000 terms, it is possible for the discrepancy figure to reach 80% simply as a result of the fact that 80% of the terms in the second system do not have an exact equivalent in the first. So some remedial action seems to be quite inevitable if switching in such conditions is to be feasible.

One way of avoiding this gross loss in specificity would be for the indexer using the first language (e.g. the Aslib limited vocabulary) to tag general terms according to which specific (but suppressed) term generated it; e.g. the Aslib lead-in vocabulary shows:

Indexing services use Indexing and abstracting services
Abstracting services use Indexing and abstracting services

If, when indexing a document on Indexing services the indexer assigned the terms thus:

Indexing and abstracting services (i.e. Indexing services
this would convey adequate specificity for switching purposes. The indications are that the discrepancy figure would drop by as much as 40% if this were done.

On the other hand, it is probably unwise to assume that a Centre would alter an indexing policy of economical entry (in the shape of a smaller, less specific, vocabulary) in order to add such tags. A reasonable compromise might be for the indexer at such a Centre to indicate only that and assigned term was co-extensive or not co-extensive with the concept represented. Terms of the first kind would then pass through the receiving Centre's processing unchecked whereas terms of the second kind might be refined by the receiving Centre if it has a normal policy of more specific indexing.

A very limited number of terms appears to account for a disproportionately high number of discrepancies in any series of switching tests between two given systems. Most of these terms are general terms capable of several interpretations, e.g. Communication, Service Organisations, Library Science, Library Systems, Information.

The frequency with which such ill-defined terms impede confident translation from language to language suggests the need for at least a minimum checklist of terms needing explicit definitions in each participating language.

Additionally, the place of explicit definition in participating languages needs to be assessed. This problem becomes even more serious when considering switches between different natural languages.

Discrepancies due to inherent inadequacies in the IL could be even further improved since structurally it has proved entirely hospitable to specific terms of all kinds.

In assessing discrepancies between a pre- and a post-coordinate scheme it is necessary to consider the incidence of terms which are implicit in the hierarchy of the latter but not explicit in its index set.

e.g. Consider the hierarchy containing "Profiles":

Information retrieval
SDI
Profiles

If the term "Profiles" is used, the terms "SDI" and "Information Retrieval" are implied.

Intermediate Lexicon Research Project Phase 2

An application was submitted to OSTI for a grant to extend work on the Intermediate Lexicon, and was successful. The areas which will form the basis of the investigations are:

(i) Exploration of factors affecting improved switching performance.

(ii) Retrieval performance tests of switched and non-switched index sets.

(iii) Practical tests in operational centres.

Exploration of factors affecting improved switching performance

The Lexicon will be expanded to incorporate the total vocabulary of the test systems. So far, restrictions of time have allowed only the minimum vocabulary represented by the test documents themselves to be incorporated. This is unsatisfactory in that the presence of further vocabulary, much of which is related to some degree to that active in the experiments, could conceivably affect the accuracy of translation and switching.

Retrieval performance tests of switched and non-switched index sets

It seems likely that there will always be some difference between index sets obtained by direct indexing of documents into a scheme and those obtained from switching into that scheme from some other person's indexing, via an IL. To assess the operational significance of these differences demands some measurement of retrieval performance. For example, it could be the case that the terms which are successfully switched are more potent in recall than those which are missed.

The aim of performance tests would be less to establish precise recall and precision figures than to provide a basis for failure tests to show why a given switching operation might be regarded as unsuccessful.

Practical tests in operational centres

The ultimate objective in this work on an Intermediate Lexicon is to improve the economic efficiency (and, perhaps, the technical efficiency) of information centres by facilitating cooperation between them.

On the assumption that the present project, together with the continuation work detailed above, will have examined thoroughly most of the theoretical problems involved, a logical next step would seem to be an examination of the practical problems of implementing the cooperation made possible by an Intermediate Lexicon, including a realistic estimation of its costs and benefits.

In order to investigate these problems, the agreement will be sought of three different information centres to cooperate for a period of between two to three months in testing the use of an Intermediate Lexicon. This will test its use in making readily available to a receiving centre the subject indexing output of other centres in such a way as to relieve the receiving centre of the need to index itself a significant amount of the literature it would otherwise need to inded.

The cooperating centres would, of course, be in the same subject area and it is proposed that this should be an area other than library and information science (in which the examination of theoretical problems has so far taken place).

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CHAPTER 6

Coverage of Periodical Articles by the Services

Secondary services usually place great emphasis on the coverage of periodical articles and comparisons of their performance in so doing are the prime means of assessing the worth of the services.

The following lists of periodicals covered by each service in 1973 were compiled by examining the citations in all six publications. The titles are ranked according to the number of citations found. Where possible, the inclusive dates of the issues covered are given in square brackets in order to account for anomalous positions, e.g., Bibliotekar (Belgrade) on the BS list where it seems obvious that coverage had just commenced, and to allow for some comparison between the rankings on different lists. Brief summary tables are given at the end of the ranking list for each service.

The concept of "core" periodicals and the relationship of a core to the secondary services are discussed in Chapter 7. An appendix to this report, beginning on p.174 , gives an alphabetical list of all the periodical titles discovered in the survey, together with an indication of the total number of articles covered.

Bulletin Signalétique - Section 101

Coverage of Periodical Articles - 1973

25 citations & over

(1)	Nauchno-Tekhnicheskaya Informatsiya [Series 1 (3) 1972 - Series 2 (6) 1973]	207
(2)	Journal of the American Society for Information [Jan-Feb 72 - May-June 73]	81
(3)	Bibliotekar (Belgrade) [(5) 1970 - (5) 1972]	61
(4)	Special Libraries [July 72 - May/June 73]	57
(5)	Aslib Proceedings [Aug 72 - June 73]	46
(6)	Journal of Chemical Documentation [Aug 72 - May 73]	45
(7a)	Information Storage and Retrieval [June 72 - July 73]	41
(7b)	Library Resources & Technical Services [Spring 72 - Winter 73]	41
(9)	Science de l'Information [(1) 1972 - (8) 1973]	40
(10a)	Aktualne Problemy Informacji i Dokumentacji [(2) 1972 - (2) 1973]	38
(10b)	Library Journal [Aug 72 - 15 June 73]	38
(12)	Unesco Bulletin for Libraries [Sept-Oct 72 - July-Aug 73]	35
(13)	Zentralblatt für Bibliothekswesen [Aug 72 - May 73]	34
(14)	Nachrichten für Kokumentation [Aug 72 - June 73]	33
(15)	Informatik [(1) 1973 - (3) 1973]	30
(16)	Meta [(1/2) 1971 - (1/2) 1973]	29
(17a)	College & Research Libraries [Mar 72 - Sept 73]	26
(17b)	Library Trends [July 72 - Jan 73]	26
(19)	Bulletin of the Medical Library Association [July 72 - Apr 73]	25

15 - 24 citations

(20a)	Bibliotekar' (Moscow) [(6) 1972 - (6) 1973]	24
(20b)	Zeitschrift für Bibliothekswesen und Bibliographie [(4-5) 1972 - May-June 1973]	24
(22a)	Bulletin du CIMAB [(8) 1972 - (7) 1973]	23
(22b)	International Library Review [Oct 72 - July 73]	23
(22c)	Journal of Library Automation [June 71 - Dec 72]	23
(25)	Quarterly Bulletin of the International Association of Agricultural Librarians & Documentalists [(2) 1972 - (2) 1973]	22
(26a)	ANRT Information et Documentation [Apr 72 - June 72]	21
(26b)	Banque des Mots [(3) 1972 - (4) 1972]	21
(26c)	Bulletin des Bibliothèques de France [June 72 - July 73]	21
(29a)	Automatisme [June-July 72 - Aug-Sept 73]	20
(29b)	Bookmark [July-Aug 72 - Mar-Apr 73]	20
(29c)	Herald of Library Science [Jan 72- July 72]	20
(29d)	Program [Oct 72 - July 73]	20
(33a)	Dokumentesyon Kenkyu [July 72 - June 73]	19
(33b)	Sovetskoe Bibliotekovedenie (Formerly Biblioteki SSSR) [(52) 1972 - (3) 1973]	19
(35)	Journal of Documentation [Sept 72 - June 73]	18
(36a)	Associazione Italiana Biblioteche Boolettino d'Informazione [Oct-Dec 71 - Oct-Dec 72]	17
(36b)	Documentation et Bibliothèques (Formerly Association Canadienne des Bibliothécaires de Langue Française. Bulletin) [(3) 1972 - (2) 1973]	17
(36c)	Journal of Education for Librarianship [Summer 72 - Spring 73]	17
(36d)	Journal of Librarianship [Oct 72 - July 73]	17
(36e)	Law & Computer Technology [Nov-Dec 71 - Nov-Dec 72]	17
(36f)	Tidskrift für Dokumentation [(4) 1972 - (2) 1973]	17
(42a)	DFW [Jan/Feb 72 - May/June 73]	16
(42b)	Polygraph [(15) 1972 - (15) 1973]	16

53

(44a)	Advanced Technology/Libraries [(1) 1973 - (5) 1973]	15
(44b)	Documentalists [Sept 72 - June 73]	15
(44c)	Libri [(3) 1972 - (1) 1973]	15

10 - 14 citations

(47a)	Bbg. Fr. [(3) 1973 - (37) 1973]	14
(47b)	Information Scientist [Sept 72 - June 73]	14
(49a)	Association des Bibliothécaires Suisses, Association Suisses des Documentalistes, Nouvelles [(4) 1972 -(3) 1973]	13
(49b)	Babel [(3) 1972 - (2) 1973]	13
(51)	Studii si Cercetare de Documentare [Sept 72 - June 73]	12
(52a)	Journal of Micrographics [Jan/Feb 73 - May/June 73]	11
(52b)	Library Science with a Slant to Documentation [Dec 71 - Sept 72]	11
(54a)	Annals of Library Science and Documentation [Mar 72 - June 72]	10
(54b)	Computers and Automation [(6B) 1972 - (4) 1973]	10
(54c)	Inspel [Apr 72 - Jan 73]	10
(54d)	Rivista dell'Informazione [June-Agu 72 - Dec 72]	10

2 - 9 citations

(58a)	Bibliography, Documentation, Terminology [Sept 72 - July 73]	9
(58b)	Imprimerie Nouvelles [(212) 1973 - (218) 1973]	9
(58c)	International Cataloguing [Jan/Mar 73 - July/Sept 73]	9
(58d)	Languages [(27) 1972 - (28) 1972]	9
(58e)	Library Quarterly [July 72 - Apr 73]	9
(58f)	Microdoc [(2) 1972 - (1) 1973]	9
(58g)	Rechentechnik/Datenverarbeitung [(8) 1972 - (7) 1973]	9
(58h)	Usine Nouvelle [(9) 1972 - (36) 1973]	9
(66a)	American Libraries [June 72 - June 73]	8
(66b)	Association des Bibliothécaires Français. Bulletin d'Informations [1st Quarter 72 - 2nd Quarter 73]	8

(66c)	Indexer [Oct 72 - Apr 73]	8
(66d)	News of Scientific Abstracting and Indexing Services [(4) 1972 - (6) 1972]	8
(70a)	IEEE Transactions onProfessional Communications [(2) 1972 - (1) 1973]	7
(70b)	Informatique Gestion [(45) 1972 - (46) 1973]	7
(70c)	Izvestiya Centre. Bibl. Balg. Akad. Nauk. Balg. [(7) 1973]	7
(73a)	Codata Bulletin [(3) 1971 - (8) 1972]	6
(73b)	College & Research Libraries News [?]	6
(73c)	Library of Congress Information Bulletin [(42) 1972 -(15)1973]	6
(73d)	Methods of Information in Medicine [Jan 73 - July 73]	6
(73e)	Technik [(8) 1972 - (2) 1973]	6
(73f)	Travail et Méthodes [(277) 1972 - (289) 1973]	6
(79a)	Bulletin Mensuel de Normalisation Français [(230) 1973 - (231) 1973]	5
(79b)	Cadernos de Biblioteconomia, Arquivistica e Documentacao [(2) 1972 - (3/4) 1972]	5
(79c)	Informatique [(31) 1972 - (37) 1973]	5
(79d)	Infosystems [(11) 1972 - (5) 1973]	5
(79e)	Neue Technik im Buro [(1) 1973 - (4) 1973]	5
(79f)	Revue Française Automat. Informat. Rech. Operat. B [(6) 1972 - (1) 1973]	5
(79g)	TA Informations [(2) 1972 - (3) 1973]	5
(86a)	Angewandte Informatik [(10) 1972 - (1) 1973]	4
(86b)	Ann. Mines. [(10) 1972 - (5) 1973]	4
(86c)	Bulletin de la Commission pour la Normalisation Traitement Informatique [(14) 1973]	4
(86d)	Bulletin of the Institute of International Statistics [(1) 1971 - (1) 1972]	4
(86e)	Computers and the Humanities [Nov 72 - Mar 73]	4
(86f)	Courrier de la Normalisation [(229) 1973 - (231) 1973]	4
(86g)	Data Systems [(7) 1972 - (5) 1973]	

(86h)	ISLIC Bulletin [(1) 1973 - (2) 1973]	4
(86i)	Journal of Data Processing and Office Machinery [(5) 1972 - (6) 1972]	4
(86j)	BLL Review (Formerly NLL Review) [Oct 72; Jan 73]	4
(86k)	Pathol Europe [(2) 1972]	4
(86l)	Produttivita [(12) 1972]	4
(86m)	Restaurator [(1) 1972 - (3) 1972]	4
(86n)	Système d'Informatique [(15) 1972]	4
(86o)	Terminol. Bull. [(15) 1971 - (22) 1972]	4
(86p)	Transactions of the Royal Society of Canada [(9) 1971]	4
(102a)	American Journal of Pharmaceutical Education [(5) 1972]	3
(102b)	Ar. Med. Soz-Med. Praventivmed. [(7) 1973]	3
(102c)	Arts et Métiers [(3) 1972 - (8-9) 1972]	3
(102d)	Associations Internationales [(10) 1972 - (3) 1973]	3
(102e)	Caractère [(11) 1972 - (7) 1973]	3
(102f)	Hommes et Techniques [(338) 1972 - (342) 1973]	3
(102g)	Journal Audiovisuel [(91) 1973 - (94) 1973]	3
(102h)	Nature [(5273) 1972 - 30 Mar 73]	3
(102i)	OS I Newsletter [Dec 72 - Mar 73]	3
(102j)	Poligrafiya [(6) 1972 - (2) 1973]	3
(102k)	Revue Administr [(149) 1972 - (153) 1973]	3
(102l)	Zero, Un, Informat, Manag [(67) 1973 - (69) 1973]	3
(114a)	Almanacco dei Biblioteche Italiana [(22) 1973]	2
(114b)	Ann Econ Soc Measur [(2) 1972]	2
(114c)	Art Bibliothekar-Lehrinstitut des Landes Nordrhein-Westfalen [(40) 1972 - (41) 1972]	2
(114d)	Avtomat Vychislit Tekh [(5) 1972 - (6) 1972]	2
(114e)	Bol. Inform. Document. [(5) 1972 - (7/8) 1972]	2
(114f)	Bulletin IRIA [(7) 1972 - (13) 1972]	2

(114g) Bulletin ISO [(12) 1972 - (6) 1973] 2

(114h) Bulletin Soc. Chim. Fr. [(5) 1973] 2

(114i) Cahiers Linguist. Theor. Appl. [(7) 1970 - (8) 1971] 2

(114j) Chemie Ingenieur Technik [(8) 1973] 2

(114k) Computer Studies in the Humanities and Verbal Behavior [(4) 1972] 2

(114l) C.Z. Chem.-Tech. [(12) 1972] 2

(114m) Entret. de Bichat. Med. [1972] 2

(114n) Etudes et Réalisation [(135) 1972] 2

(114o) Euro-Spectra [(1) 1973 - (2) 1973] 2

(114p) Food Technology [(1) 1973 - (5) 1973] 2

(114q) IBM Journal of Research and Development [(3) 1972] 2

(114r) Information [Nov-Dec 1972 - Jan-Feb 1973] 2

(114s) Information Retrieval & Library Automation Letter [Nov 72; Jan 73] 2

(114t) Inter Electron [(80) 1973; (93-94) 1973] 2

(114u) JOIA Technical Communications [(3) 1972 - (4) 1972] 2

(114v) Journal of the Instit. Engrs. (India), Indust. Develop. Gen. Engng. 2

(114w) Journal of the Washington Academy of Sciences [(4) 1972; (1) 1973] 2

(114x) Library of Congress Processing Department. Cataloguing Service Bulletin [(100) 1971; (105) 1972] 2

(114y) Manag. Fr. [(8/9) 1972; (?) 1973] 2

(114z) Physics Bulletin [(05) 1973] 2

(114za) Poligrafika [(11) 1972 - (12) 1972] 2

(114zb) Prague Studies in Mathematical Linguistics [(4) 1972] 2

(114zc) Proceedings Jap. Acad. [(2) 1972] 2

(114zd) Rail International [(10) 1972; (11) 1972] 2

(114ze) Revue Informat. Med. [(5) 1972; (4) 1972] 2

(114zf)	Riv. Trim. Sci. Amministr. [(2) 1972]	2
(114zg)	Sci-Tech News [Spring 72 - Summer 73]	2
(114zh)	Science [(4059) 1972 - (4060) 1972]	2
(114zi)	Semiotica [(4) 1972; (2) 1973]	2
(114zj)	Siemens Z. [(7) 1972; (2) 1973]	2
(114zk)	Software - Practical Experience [(3) 1972]	2
(114zl)	Spis. Balg. Akad. Nauk. [(5) 1972]	2
(114zm)	Visual Education [(05) 1972; (04) 1973]	2
(114zn)	Voprosi Filosofii [(1) 1973; (7) 1973]	2
(114zo)	Zeitschrift Wirtsch. Fertig. [(2) 1973; (3) 1973]	2
(114zp)	Zentralblatt Chir. [(45) 1972]	2
(114zq)	Zh. Nauch. Prikl. Fotogr. Kinematogr. [(6) 1972]	2

Plus 164 titles with 1 citation 164

BS - Section 101

Periodical Coverage

Summary Table

Journals with:-	Number of Titles	Percentage of Total Titles	Number of Abstracts	Percentage of Abstracts for Periodicals
1 citation	164	52%	164	8%
2-9 citations	99	31%	382	18%
10-14 citations	11	3%	128	6%
15-24 citations	27	8%	517	24%
25+ citations	19	6%	933	44%
	320	100%	2124	100%

Computer & Control Abstracts - Chapter 8.5

Coverage of Periodical Articles

25 citations & over

(1)	Nauchno-Teckhnicheskaya Informatsiya [Series 2 (7) 1972 - Series 2 (8) 1973]	167
(2)	Journal of the American Society for Information Science [Sept-Oct 72 - Sept-Oct 1973]	66
(3)	Journal of Chemical Documentation [May 72 - Aug 73]	65
(4)	Aktualne Problemy Informacji i Dokumentacji [(1) 1972 - (2) 1973]	42
(5)	Information Storage & Retrieval [Dec 72 - Sept 73]	40
(6)	Aslib Proceedings [Oct 72 - July 73]	38
(7)	Informatik [(5) 1972 - (5) 1973]	33
(8)	Special Libraries [July 72 - May-June 73]	32
(9)	Ceskoslovenská Informatika [(9) 1972 - (7-8) 1973]	28
(10)	Probleme de Informare şi Documentare [(9) 1972 - (6) 1973]	25

15 - 24 citations

(11a)	Journal of Micrographics [Sept-Oct 72 - July-Aug 73]	24
(11b)	Nachrichten für Documentation [Oct 72 - June 73]	24
(13)	Library Resources & Technical Services [Spring 72 - Winter 73]	22
(14)	Program [July 72 - July 73]	19
(15)	Journal of Documentation [Dec 72 - Sept 73]	16
(16)	Tudományos és Műszaki Tájékoztatás [Aug-Sept 72 - Apr 73]	15

10 - 14 citations

(17)	Unesco Bulletin for Libraries [Nov-Dec 72 - July-Aug 73]	13
(18a)	Journal of Education for Librarianship [Summer 72 - Spring 73]	12
(18b)	Tidskrift für Dokumentation [(4) 1972 - (1) 1973]	12

(20a) Automatisme [Nov 72 - Aug-Sept 73] 11

(20b) Studii si Cercetare e Documentare [Sept 72 - Mar 73] 11

(22a) IEEE Transactions on Professional Communications [Dec 72 - June 73] 10

(22b) Journal of Librarianship [Apr 72 - July 73] 10

(22c) Open [Oct 72 - June 73] 10

(22d) Quarterly Bulletin of the International Association of Agricultural Librarians & Documentalists [(2) 1972 - (4) 1972] 10

2 - 9 citations

(26a) IBM Technical Disclosure Bulletin [Aug 72 - July 73] 9

(26b) Library Association Record [Oct 72 - July 73] 9

(28a) CIIG Bulletin [July 72 - Spring 73] 8

(28b) Journal of Library Automation [June 72 - Sept 72] 8

(28c) Knižnice a Vedecké Informácie [(2) 1972 - (1) 1973] 8

(28d) OMKDK Tudomanyos Tajekoztatas Elmelete Gyakorleta [(19) 1972] 8

(32a) Bulletin of the Medical Library Association [July 72 - Oct 72] 7

(32b) Technická Knihovna [(12) 1972 - (5) 1973] 7

(34a) Bulletin of the Operations Research Society of America [Supplement 2 1972] 6

(34b) Documentaliste [Sept 72 - June 73] 6

(34c) Documentation et Bibliothèques (Formerly Association Canadienne des Bibliothécaires de Langue Française. Bulletin) [Sept 72 - Mar 73] 6

(34d) Information - Pts. 1 & 2 [May-June 72 - Jan-Feb 73] 6

(34e) Information Scientist [Dec 72 - June 73] 6

(34f) Management Information [Feb 72 - June-Aug 72] 6

(34g) Microform Review [July 72 - Apr 73] 6

(41a) Bürotechnik Automation + Organisation [Oct 72 - Jan 73] 5

(41b) Methods of Information in Medicine [Jan 73 - Oct 73] 5

(43a) Acta Crystallographica Section A [15 July 72 supplement] 4

(43b)	Canadian Datasystems [Mar 73 - Aug 73]	4
(45a)	ANRT Information et Documentation [June 72]	3
(45b)	College & Research Libraries [Nov 72 - Mar 73]	3
(45c)	Communications of the ACM [May 73 - June 73]	3
(45d)	Feingerätte Technik [Feb 73 - June 73]	3
(45e)	Herald of Library Science [Jan 72 - Apr 72]	3
(45f)	Informatie [Sept 72 - Nov 72]	3
(45g)	ISILIC Bulletin [Oct 72]	3
(45h)	Kybernetes [Oct 72 - July 73]	3
(45i)	Mechanizace Automatizace Administrativy [(1) 1973; (6) 1973]	3
(45j)	Ontario Library Review [Dec 72 - Jan 73]	3
(45k)	Rivista dell'Informazione [June-Aug 72 - Dec 72]	3
(45l)	Sci-Tech News [Summer 72]	3
(57a)	Analytical Chemistry [Oct 72 - Jan 73]	2
(57b)	Audiovisual Instruction [Feb 73 - Apr 73]	2
(57c)	BLL Review (Formerly NLL Review) [Jan 73 - July 73]	2
(57d)	Building [16 Feb 73; 17 Aug 73]	2
(57e)	Chemie Ingenieur Technik [Apr 73]	2
(57f)	Communicator of Scientific and Technical Information [Jan 73 - Apr 73]	2
(57g)	Data Processing [May-June 73 - Sept-Oct 73]	2
(57h)	Data Report [Dec 72; Aug 73]	2
(57i)	Euro-Spectra [Mar 73; June 73]	2
(57j)	Fertigungstechnik und Betrieb [Feb 73; May 73]	2
(57k)	IBM Nachrichten [(213) 1973]	2
(57l)	Information Bulletin of the Library Automated Systems Information Exchange [May-June 72]	2
(57m)	Information Sciences [Jan 73]	2
(57n)	International Atomic Energy Agency Bulletin [Apr 73]	2

(57o)	Jena Review [Special issue 1973]	2
(57p)	Journal of Research in Music Education [Winter 72 -Spring 73]	2
(57q)	Journal of the Association for the Advancement of Medical Instrumentation [Jan-Feb 73]	2
(57r)	LARC Reports [(2) 1972 - (1) 1973]	2
(57s)	Law & Computer Technology [Sept-Oct 72 - Mar-Apr 73]	2
(57t)	Library Quarterly [Oct 72 - Apr 73]	2
(57u)	Mekhanizahriya i Avtomahzatsiya Upravleniya [(16) 1972]	2
(57v)	Mekhanizatsiya i Avtomatizatsiya Proizvodstva [(2) 1973; (4) 1973]	2
(57w)	Modern Data [Nov 72 - Dec 72]	2
(57x)	NRCd Bulletin [Winter 72-73]	2
(57y)	Nuclear Engineering and Design [Aug 73]	2
(57z)	PIA Bulletin [Jan 73 - May 73]	2
(57za)	Printing Technology [Dec 72]	2
(57zb)	Problemy Bioniki [(8) 1971]	2
(57zc)	Science [3 Aug 73; 3 Nov 72]	2
(57zd)	Technik [Oct 72]	2
(57ze)	TNO Nieuws [Dec 72]	2
(57zf)	Zeitschrift für Organisation [Oct 72]	2
Plus 89 titles with 1 citation		89

Periodical Coverage

Summary Table

Journals with:-	Number of Titles	Percentage of Total Titles	Number of Abstracts	Percentage of Abstracts for Periodicals
1 citation	89	50%	89	9%
2-9 citations	63	35%	224	21%
10-14 citations	9	5%	99	9%
15-24 citations	6	3%	12	11%
25+ citations	10	6%	636	60%
	177	100%	1060	100%

Information Science Abstracts

Coverage of Periodical Articles

25 citations & over

(1)	Nauchno-Tekhnicheskaya Informatsiya [Series 2 (6) 1967; Series 1 (8) 1969; Series 1(7) 1972 - Series 1(7) 1973]	199
(2)	Journal of the American Society for Information Science [Sept-Oct 70; Sept-Oct 71; July-Aug 72 - Sept-Oct 73]	88
(3)	Special Libraries [Oct 72 - Sept 73]	78
(4)	Bulletin of the Medical Library Association [July 69; Apr 71 - Oct 72]	61
(5)	Journal of Chemical Documentation [Nov 72 - Aug 73]	54
(6)	College & Research Libraries [July 71 - May 73]	42
(7)	Library Journal [15 June 72 - 15 June 73]	40
(8)	Library Resources & Technical Services [Fall 64; Summer 72 - Winter 73]	38
(9)	Drexel Library Quarterly [Jan 72 - Oct 72]	35
(10)	Information Storage and Retrieval [Aug 72 - May 73]	34
(11a)	Library Science with a Slant to Documentation [June 72 - Mar 73]	28
(11b)	Library Trends [Apr 72 - Jan 73]	28
(13)	Unesco Bulletin for Libraries [July-Aug 70; July-Aug 72 - Mar-Apr 73]	27

15 - 24 citations

(14)	Chemical & Engineering News [4 Sept 72 - 20 Aug 73]	24
(15)	Scholarly Publishing [Oct 70; Apr 72 - July 73]	21
(16)	RQ [Fall 72 - Summer 73]	19
(17a)	Information Processing Letters [Oct 72 - June 73]	18
(17b)	Information Scientist [Mar 72 - Mar 73]	18
(19a)	Journal of Documentation [Sept 72 - June 73]	17
(19b)	Tudomanyos es Műszaki Tajékoztatas [July 72 - Apr 73]	17
(21a)	Dokumentesyon Kenkyu [Sept 72 - July 73]	15
(21b)	Microform Review [Jan 72 - July 72]	15

10 - 14 citations

(23a)	Nachrichten für Dokumentation [Aug 72 - Jan 73]	14
(23b)	Visible Language [Winter 71 - Spring 73]	14
(25)	Journal of Education for Librarianship [Summer 72 - Spring 73; Winter 73]	13
(26a)	Probleme de Informare si Documentare [(1) 1972 - (2) 1972]	12
(26b)	Australian Academic and Research Libraries [Sept 72 - Mar 73]	12
(26c)	Journal of Librarianship [July 72 - Apr 73]	12
(29a)	Computerworld [29 Nov 72 - 8 Aug 73]	11
(29b)	Information - Pts. 1 & 2 [May-June 72 - May-June 73]	11
(29c)	Journal of Micrographics [Sept 72 - July 73]	11
(29d)	Przeglad Biblioteczny [(1-4) 1971 - (3-4) 1972]	11
(33a)	Aslib Proceedings [Oct 72 - Dec 72; July 73]	10
(33b)	International Library Review [Oct 72 - Apr 73]	10
(33c)	Journal of Library Automation [Sept 69; June 72; Sept 72]	10
(33d)	Library of Congress Information Bulletin [21 July 72 - 15 June 73]	10
(33e)	Library Quarterly [Oct 72 - Apr 73]	10
(33f)	Wilson Library Bulletin [Sept 72 - May 73]	10

2 - 9 citations

(39a)	Aktualne Problemy Informacji i Dokumentacji [(3) 1972 - (6) 1972]	9
(39b)	Bibliography, Documentation, Terminology [July 72 - Nov 72]	9
(39c)	Datamation [Feb 73 - Aug 73]	9
(39d)	Methods of Information in Medicine [Oct 72 - Apr 73]	9
(39e)	Science [3 Mar 72 - 27 Apr 73]	9
(39f)	Technicka Knihevna [(1) 1971 - (12) 1972]	9
(45a)	Informatyka [(4) 1971 - (10) 1972]	8
(45b)	NRCd Bulletin [Autumn 71 - Spring 73]	8

(47a)	Annals of Economic and Social Measurement [Jan 72 - Apr 72]	7
(47b)	AV Communication Review [Fall 72 - Summer 73]	7
(47c)	Current Contents, Life Sciences [4 Aug71 - 2 Aug 72]	7
(47d)	Journal of Experimental Psychology [(2) 1969 - (3) 1972]	7
(47e)	Zagadnienia Informacji Naukowej [(1) 1972 - (2) 1972]	7
(52a)	American Archivist [Jan 73 - July 73]	6
(52b)	Annals of Library Science and Documentation [June 71 - June 72]	6
(52c)	Information Science Abstracts [Feb 73 - Dec 73]	6
(52d)	Law & Computer Technology [Sept-Oct 72 - July-Aug 73]	6
(52e)	Publishers Weekly [1 Jan 73 - Sept 73]	6
(52f)	Revista de Biblioteconomia de Brasilia [Jan-June 73 - July-Dec 73]	6
(52g)	Reczniki Biblioteczne [(3-4) 1969 - (3-4) 1971]	6
(52h)	Studii şi Cercetarii de Documentare	6
(60a)	American Libraries [Nov 72 - Dec 72; Apr 73]	5
(60b)	Archivar [Feb 71 - May 71]	5
(60c)	Ceskoslovenska Informatika [(5) 1971 - (7-8) 1972]	5
(60d)	Communications of the ACM [Oct 72 - Nov 72]	5
(60e)	IEEE Transactions on Computers [Feb 72 - Nov 72]	5
(60f)	Journal of the Society of Archivists [Apr 71 - Apr 72]	5
(60g)	Prague Bulletin of Mathematical Linguistics [(17) 1972 - (18) 1972]	5
(60h)	Videocassette & CATV Newsletter [Feb 73 - Aug 73]	5
(68a)	Audiovisual Instruction [Nov 72 - Sept 73]	4
(68b)	Current Awareness - Library Literature [July-Aug 73]	4
(68c)	CAS Report [Oct 72 - Apr 73]	4
(68d)	Computers and the Humanities [May 72 - Sept]	4
(68e)	Computing Newsletter for Schools of Business [Nov 72 -Mar 73]	4

(68f)	FID News Bulletin [15 Sept 72; 15 Feb 73]	4
(68g)	Mechanizace a Automatizace Administrativy [(7) 1972; (12) 1972]	4
(68h)	Micro-News Bulletin [Feb 73 - Aug 73]	4
(68i)	Orvosi Könyvtáros [(3) 1972 - (4) 1972]	4
(77a)	Drug Information Journal [(1) 1972]	3
(77b)	Izvestiya Vysshikh Uchebnykh Zavedenii Priborostroenie [(6) 1971 - (7) 1972]	3
(77c)	Kybernetika [(1968); (6) 1970; (4) 1972]	3
(77d)	Policy Sciences [Sept 72; Dec 72; Mar 73]	3
(77e)	Revista da Escola de Biblioteconomia da Universidade Federal de Minas Gerais [Mar 73]	3
(77f)	School Media Quarterly [Fall 72; Summer 73]	3
(83a)	Angewandte Informatik [(10) 1972]	2
(83b)	Appita [Nov 72; Jan 73]	2
(83c)	Archeion [(1972)]	2
(83d)	Archiwum Automatyki i Telemechaniki [(1) 1972; (4) 1972]	2
(83e)	Bulletin de l'Academie Polonaise des Sciences. Serie des Sciences Mathématiques, Astronomiques et Physiques [(6) 1971]	2
(83f)	Commutation & Electronique [Jan 73; July 73]	2
(83g)	Computers and Biomedical Research [(5) 1972]	2
(83h)	Data Processing Digest [Apr 73; May 73]	2
(83i)	Documentaliste [Mar 71 - June 72]	2
(83j)	Government Data Systems [Mar-Apr 73]	2
(83k)	Journal of Chemical Education [Oct 72]	2
(83l)	Journal of Learning Disabilities [Dec 71; Apr 72]	2
(83m)	Journal of the Washington Academy of Sciences [Mar 73; June 73]	2
(83n)	Jurimetrics Journal [June 72]	2
(83o)	Learning Today [Winter 73]	2

(83p)	Library Scene [Summer 72]	2
(83q)	Management Science [Sept 72; Feb 73]	2
(83r)	Mekhanizatsiya i Avtomatizatsiya Upravleniya [(4) 1969; (6) 1969]	2
(83s)	Modern Packaging [Dec 72; Feb 73]	2
(83t)	News Notes of California Libraries [Winter 73; Summer 73]	2
(83u)	Perception and Psychophysics [(6B) 1969; (2) 1970]	2
(83v)	Prasa Techniczna [(2) 1972]	2
(83w)	Recherche Technique Bulletin d'Information de l'Association Nationale de la Recherche Technique [(83) 1969]	2
(83x)	Research/Development [Mar 73; July 73]	2
(83y)	Special Libraries Association. Boston Chapter News Bulletin [Jan 73; Mar 73]	2
(83z)	Special Libraries Association. Geography and Map Division Bulletin [Sept 72; Dec 72]	2
(83za)	Svensk Papperstidning [15 Oct 72; 10 Apr 73]	2
(83zb)	UW Library News [University of Wisconsin] [Dec 72; Jan 73]	2
Plus 137 titles with 1 citation		137

ISA

Periodical Coverage

Summary Table

Journals with:-	Number of Titles	Percentage of Total Titles	Number of Abstracts	Percentage of Abstracts for Periodicals
1 citation	137	56%	137	9 %
2-9 citations	72	29%	303	20 %
10-14 citations	16	6%	181	11.5%
15-24 citations	9	4%	164	10.5%
25+ citations	13	5%	752	49 %
	247	100%	1537	100 %

Library & Information Science Abstracts

Coverage of Periodical Articles - 1973

25 citations & over

(1)	Library Journal [1 Oct 72 - 15 Oct 73]	91
(2a)	Biblioteksbladet [(6) 1972 - (14) 1973]	64
(2b)	Nauchno-Tekhnicheskaya Informatsiya [Series 1 (6) 1972 - Series 1 (2) 1973]	64
(4)	Special Libraries [Oct 72 - Sept 73]	59
(5)	Journal of the American Society for Information Science [Nov-Dec 72 - Sept-Oct 73]	52
(6a)	Bogens Verden [(8) 1972 - (8) 1973]	51
(6b)	Library Association Record [Dec 72 - Nov 73]	51
(8)	Kirjastolehti [(6) 1972 - (9) 1973]	48
(9a)	Australian Library Journal [Oct 72 - Sept 73]	44
(9b)	New Library World [Dec 72 - Nov 73]	44
(11)	Aslib Proceedings [Jan 73 - Oct 73]	43
(12a)	Wilson Library Bulletin [Nov 72 - Oct 73]	41
(12b)	Zentralblatt für Bibliothekswesen [Sept 72 - Sept 73]	41
(14)	New Zealand Libraries [Oct 72 - Special Issue (Late Summer) 73]	36
(15)	Information Storage and Retrieval [Jan 73 - Oct 73]	35
(16a)	Buch und Bibliothek [Sept 72 - Aug 73]	34
(16b)	Canadian Library Journal [Nov-Dec 72 - Sept-Oct 73]	34
(18a)	Library Resources & Technical Services [Fall 72 - Spring 73]	33
(18b)	Unesco Bulletin for Libraries [Jan-Feb 73 - Sept-Oct 73]	33
(20)	Bibliotheksdienst [Nov 72 - Oct 73]	32
(21a)	International Library Review [Jan 73 - July 73]	30
(21b)	Journal of Chemical Documentation [Nov 72 - May 73]	30
(21c)	Library Trends [Oct 72 - Apr 73]	30

(21d)	Nachrichten für Dokumentation [Oct 72 - Oct 73]	30
(25)	Bibliotheek en Saenleving (Formerly Openbare Bibliotheek) [Sept 72 - Sept 73]	29
(26a)	American Libraries [Nov 72 - Oct 73]	28
(26b)	An Leabharlann. The Irish Library [June 72 - Sept 73]	28
(26c)	Libri [(3) 1972 - (2) 1973]	28
(29)	Bibliothekar [Sept 72 - Sept 73]	27
(30a)	College & Research Libraries [Nov 72 - July 73]	26
(30b)	Herald of Library Science [Apr 72 - Jan 73]	26
(30c)	Mitteilungsblatt (Verband der Bibliotheken des Landes Nordrhein-Westfalen) [Aug 72 - Sept 73]	26
(30d)	Zeitschrift für Bibliothekswesen und Bibliographie [(4-5) 1972 - July-Aug 73]	26
(34a)	Bulletin of the Medical Library Association [Oct 72 - July 73]	25
(34b)	Informatik [(6) 1972 - (3) 1973]	25

15 - 24 citations

(36)	Toshokan-Kai [May 72 - June 73]	24
(37a)	Assistant Librarian [Dec 72 - Nov 73]	23
(37b)	Bibliotekarz [(6-7) 1972 - (6) 1973]	23
(37c)	Revista de Biblioteconomia de Brasilia [Jan-June 73 - July-Dec 73]	23
(37d)	SLA News [Sept-Oct 72 - Sept-Oct 73]	23
(41)	South African Libraries [July 72 - Apr 73]	22
(42a)	Journal of Librarianship [Jan 73 - Oct 73]	21
(42b)	Scandinavian Public Library Quarterly [(3) 1972 - (2) 1973]	21
(44)	Bibliotekar (Sofia) [(7-8) 1972 - (7-8) 1973]	20
(45a)	Bulletin des Bibliothèques de France [July 72 - June 73]	19
(45b)	Čitatel' [(10) 1972 - (9) 1973]	19
(45c)	Čtenář [(9) 1972 - (7) 1973]	19
(45d)	Documentation et Bibliothèques (Formerly Association Canadienne des Bibliothécaires de Langue Française, Bulletin [Sept 72 - June 73]	19

72

(45e)	Program [Oct 72 - Oct 73]	19
(45f)	Information - Pts. 1 & 2 [Sept-Oct 72 -July-Aug 73]	19
(51a)	Journal of Education for Librarianship [Summer 72 - Spring 73]	18
(51b)	Law Library Journal [Nov 72 - May 73]	18
(51c)	Studii şi Cercetare de Documentare [Mar 72 - June 73]	18
(54a)	Bok og Bibliotek [Sept 72 - July 73]	17
(54b)	Current Awareness - Library Literature [Sept-Oct 72 - July-Aug 73]	17
(54c)	DFW (Dokumentation/Information) [Sept-Oct 72 - Sept 73]	17
(54d)	Nigerian Libraries [Apr72 - Dec 72]	17
(58)	Aktualne Problemy Informacji i Dokumentacji [(6) 1971 - (1) 1973]	16
(59a)	Book Trolley [Sept 72 - Sept 73]	15
(59b)	Sovetskoe Bibliotekovedenie (Formerly Biblioteki SSSR) [(54) 1972 - (4) 1973]	15

10 - 14 citations

(61a)	Bibliotekar' (Moscow) [(9) 1972 - (8) 1973]	14
(61b)	Journal of Documentation [Mar 73 - Sept 73]	14
(61c)	Kniznice a Vedecke Informacie [(2) 1972 - (2) 1973]	14
(61d)	Konyvtari Figyelo [(3) 1972 - (2) 1973]	14
(61e)	Microform Review [Oct 72 - July 73]	14
(61f)	Probleme de Informare si Documentare [(10) 1972 - (5) 1973]	14
(67a)	Ceskoslovenska Informatika [(10) 1972 - (7-8) 1973]	13
(67b)	Indian Librarian [June 72 - Mar 73]	13
(67c)	Sovetskaya Bibliografiya [(133) 1972 - (139) 1973]	13
(70a)	Library Quarterly [Oct 72 - July 73]	12
(70b)	Toshokan Zasshi [Sept 72 - July 73]	12
(72a)	Australian Academic and Research Libraries [Dec 72 - Oct 73]	11
(72b)	Biblos (Austria) [(3) 1972 - (3) 1973]	11

(72c) Indexer [Apr 73 - Oct 73] 11

(72d) Journal of Micrographics [Nov-Dec 72 - Sept-Oct 73] 11

(76a) ARLIS Newsletter [Dec 72 - Sept 73] 10

(76b) Information Scientist [Dec 72 - Sept 73] 10

(76c) Western Association of Map Libraries Information Bulletin [June 72 - June 73] 10

2 - 9 citations

(79a) Audiovisual Librarian (including Library Association Audio-Visual Group Bulletin and Library Association Sound Recordings Group Newsletter) [(5) 1972 - Summer 73] 9

(79b) BLL Review (including NLL Review) [Jan 73 - Oct 73] 9

(79c) Catalogue & Index [Winter 72 - Summer 73] 9

(79d) EALA Bulletin (East African Library Association) [July 72] 9

(79e) Ugandan Libraries [Sept 72 - Mar 73] 9

(79f) YLG News [Winter 72 - Winter 73] 9

(85a) Associazione Italiana Biblioteche Bollettino d'Informazione [Jan-Mar 72 - Oct-Dec 72] 8

(85b) Focus on International & Comparative Librarianship [Dec 72 - Sept 73] 8

(85c) Illinois Libraries [Sept 72 - May 73] 8

(85d) International Cataloguing [Oct-Dec 72 - July-Sept 73] 8

(85e) Journal of Library History [Jan 73 - Apr 73] 8

(85f) Ontario Library Review [Mar 73 - Sept 73] 8

(85g) RQ [Spring 73 - Summer 73] 8

(85h) Special Libraries Association. Geography and Map Division Bulletin [Sept 72 - June 73] 8

(85i) Technicka Knihovna [(7-8) 1972 - (5) 1973] 8

(94a) Education Libraries Bulletin [Autumn 72 - Summer 73] 7

(94b) IPLO Quarterly [July 72 - July 73] 7

(94c) Jamaica Library Association Bulletin [Jan 73] 7

(94d) Library & Information Bulletin [(19) 1972 - (21) 1973] 7

(94e)	Library Review [Autumn 72 - Spring 73]	7
(94f)	Library Science with a Slant to Documentation [Sept 72 - Dec 72]	7
(94g)	Nachrichten. Nouvelles. Notizie. [(1) 1973 - (4) 1973]	7
(94h)	Protean [Autumn 72 - Summer 72]	7
(94i)	Rivista dell'Informazione [June-Aug 72 - Dec 72]	7
(94j)	Tidskrift for Dokumentation [(4) 1972 - (1) 1973]	7
(94k)	Tudományos és Műszaki Tájékoztatás [Nov-Dec 72 - Apr 73]	7
(105a)	Association des Bibliothécaires Français. Bulletin d'Informations [3rd Quarter 72 - 2nd Quarter 73]	6
(105b)	Australian Special Libraries News [Sept 72 - Mar 73]	6
(105c)	Catholic Library World [Dec 72 - July-Aug 73]	6
(105d)	Journal of Library Automation [June 72]	6
(105e)	Librarians for Social Change [Spring 73]	6
(105f)	Library Materials on Africa [July 72- Dec 72]	6
(105g)	PLA Bulletin [Sept 72 - May 73]	6
(105h)	School Media Quarterly [Fall 72 - Summer 73]	6
(113a)	Bookseller [4 Nov 72 - 8 Sept 73]	5
(113b)	Documentaliste [Sept 72 - June 73]	5
(113c)	Film Library Quarterly [Summer 72 - Fall 72]	5
(113d)	INSPEL [Feb 73 - Apr 73]	5
(113e)	Lecture et Bibliothèques [Oct-Dec 72 - Apr-June 73]	5
(113f)	National Central Library, Bulletin (Taiwan) [Sept 71 - Dec 72]	5
(113g)	National Central Library Newsletter (UK) [Mar 73]	5
(113h)	Open [Nov 72 - Dec 72]	5
(113i)	Rhodesian Librarian [Jan 73 - Apr 73]	5
(113j)	School Librarian [Dec 72 - Sept 73]	5
(123a)	Author [Winter 72 - Autumn 73]	4
(123b)	CIIC Bulletin [July 72]	4
(123c)	LIBER Bulletin [(1) 1972 - (2) 1973]	4

(123d)	Library Herald / Oct 70 /	4
(123e)	Library History / Autumn 72 - Spring 73 /	4
(123f)	NRCd Bulletin / Winter 72/73 - Autumn 73 /	4
(123g)	Singapore Libraries / (2) 1972 /	4
(123h)	Solanus / Mar 73 /	4
(131a)	Accademie e Biblioteche d'Italia / Nov-Dec 72 - May-June 73 /	3
(131b)	ANRT Information et Documentation / Dec 72 /	3
(131c)	Building / 16 Feb 73 - 18 May 73 /	3
(131d)	Fontes Artis Musicae / Sept-Dec 72 - Jan-Aug 73 /	3
(131e)	Hawaian Library Association Journal / June 72 /	3
(131f)	Iranian Library Association Bulletin / Summer 73 /	3
(131g)	IARC Reports / July 72 - (2) 1973 /	3
(131h)	Methods of Information in Medicine / Jan 73 - July 73 /	3
(131i)	Picturescope / Summer 72 - Summer 73 /	3
(131j)	Publishers Weekly / Oct 72 - Sept 73 /	3
(131k)	Quarterly Journal of the Library of Congress / Oct 72 - July 73 /	3
(131l)	Skoolbiblioteek / July 72 - Jan 73 /	3
(131m)	Technology Ireland / Mar 73 /	3
(131n)	Times Higher Educational Supplement / 22 Dec 72 - 3 Aug 73 /	3
(145a)	ACLS Newsletter / Summer 72 - Fall 72 /	2
(145b)	Annals of Library Science and Documentation / June 72 /	2
(145c)	Architectural Review / Jan 73 /	2
(145d)	Bibliotekovedenie i Bibliografiya za Rubezhom / (41) 1972 /	2
(145e)	Bulletin of the Circle of State Librarians / Sept 72 - Feb 73 /	2
(145f)	Computer Journal / Feb 73 - Aug 73 /	2
(145g)	DK-Mitteilungen / May 72 - Sept 72 /	2
(145h)	Drexel Library Quarterly / Oct 72 - Jan-Apr 73 /	2
(145i)	Eastern Librarian / Sept & Dec 71 /	2

(145j)	Harvard Library Bulletin [July 73]	2
(145k)	Journal of Systems Mangement [Apr 73 - June 73]	2
(145l)	Journal of the Hong Kong Library Association [Dec 71]	2
(145m)	Law Librarian [Dec 72]	2
(145n)	Library Association Medical Section Bulletin [May 73]	2
(145o)	Management in Action [July 73; Oct 73]	2
(145p)	Municipal Journal [Feb 73]	2
(145q)	Research in Librarianship [May 72]	2
(145r)	Science [3 Nov 72; 3 Aug 73]	2
(145s)	Service Point [Sept 73]	2
(145t)	A Informations [(1) 1972; (1) 1973]	2
(145u)	Times Educational Supplement [13 July 73]	2
(145v)	Times Literary Supplement [Feb 73; 6 July 73]	2
(145w)	Toshokan Gakkai Nenpo [June 72]	2
(145x)	Trends in Education [July 73]	2
Plus 42 titles with 1 citation		42

LISA

Periodical Coverage

Summary Table

Journals with:-	Number of Titles	Percentage of Total Titles	Number of Abstracts	Percentage of Abstracts for Periodicals
1 citation	42	20%	42	2%
2-9 citations	90	43%	423	17%
10-14 citations	18	8%	221	8%
15-24 citations	25	12%	482	19%
25+ citations	35	17%	1344	54%
	210	100%	2512	100%

Library Literature

Coverage of Periodical Articles - 1973

25 citations & over

(1)	Library Journal [1 Dec 72 - 15 Nov 73]	283
(2)	American Libraries [Dec 72 - Dec 73]	166
(3)	Publishers Weekly [4 Sept 72 - 17 Sept 73]	150
(4)	Zentralblatt für Bibliothekswesen [Jan 71 - Apr 72]	121
(5)	Library of Congress Information Bulletin [3 Nov 72 - 14 Dec 73]	113
(6)	Buch und Bibliothek [July-Aug 71 - Nov- Dec 71]	99
(7a)	Australian Library Journal [Aug 72 - June 73]	90
(7b)	Wilson Library Bulletin [Jan 73 - Nov 73]	90
(9)	Bogens Verden [(1) 1970 - (8) 1970]	88
(10)	School Library Journal [Feb 73 - Nov 73]	83
(11a)	Library Association Record [Sept 72 - Aug 73]	82
(11b)	Special Libraries [Oct 72 - Aug 73]	82
(13a)	Bibliography, Documentation, Terminology [July 72 - Mar 73]	80
(13b)	College & Research Libraries [Nov 72 - July 73]	80
(15)	Illinois Libraries [Oct 72 - Apr 73]	77
(16)	Canadian Library Journal [Sept-Oct 72 - May-June 73]	74
(17)	RQ [Fall 72 - Summer 73]	73
(18a)	Library Quarterly [Oct 72 - July 73]	64
(18b)	Wisconsin Library Bulletin [Sept 72 - Mar 73]	64
(20)	Cornell University Library Bulletin [Oct 71 - May 73]	61
(21a)	Bibliotekar' (Moscow) [(1) 1971 - (2) 1972]	60
(21b)	Journal of Documentation [Sept 72 - June 73]	60
(23a)	Bibliothekar [Jan 71 - Jan 72]	59
(23b)	Ontario Library Review [Sept 72 - June 73]	59

(25) Library Resources and Technical Services [Fall 72 - Spring 73] 58

(26) Unesco Bulletin for Libraries [July-Aug 72 - May-June 73] 57

(27) American Archivist [Jan 73 - July 73] 56

(28a) Journal of the American Society for Information Science [Sept-Oct 72 - May-June 73] 55

(28b) Nauchno-Tekhnicheskaya Informatsiya Series 1 [(1) 1971 - (3) 1972] 52

(30) Bookbird [(2) 1972 - (3) 1973] 48

(31) Aslib Proceedings [Oct 72 - June 73] 47

(32a) Information Storage and Retrieval [Dec 72 - Aug 73] 46

(32b) LASIE: Information Bulletin of the Library Automated System Information Exchange [May-June 70 - May 73] 46

(34) Catholic Library World [Nov 72 - July 73] 44

(35) Bulletin of the Medical Library Association [Jan 73 - July 73] 42

(36a) New Library World [Sept 72 - July 73] 41

(36b) Scholarly Publishing [Oct 72 - July 73] 41

(38a) Law Library Journal [Nov 72 - May 73] 40

(38b) Mitteilungsblatt (Verband der Bibliotheken des Landes Nordrhein-Westfalen) [Mar 71 - Nov 71] 40

(40a) Przeglad Biblioteczny [(1-4) 1971 - (1) 1972] 39

(40b) Synergy [Summer 71 - Spring 73] 39

(42) Unabashed Librarian [Nov 71 - Spring 73] 39

(43a) Bibliotekarz [(5) 1971 - (10-12) 1971] 38

(43b) Top of the News [Nov 72 - June 73] 38

(45) AB Bookman's Weekly [9 Oct 72 - 24 Sept 73] 37

(46) Library (Transactions of the Bibliographical Society) [Sept 72 - June 73] 36

(47a) Biblos (Austria) [(1) 1971 - (4) 1971] 35

(47b) Singapore Library Journal [vol. 1 1971 - vol. 2 1972] 35

(49a) Bibliographical Society of America Papers [Jan 71 - Jan 73] 34

(49b)	International Library Review [Jan 73 - July 73]	34
(49c)	Library News Bulletin (Washington State Library) [July 72 - Apr 73]	34
(52)	Bulletin de Documentation Bibliographique [Aug 71 - Dec 71]	33
(53a)	California Librarian [Oct 72 - Apr 73]	32
(53b)	Library Review [Autumn 72 - Spring 73]	32
(55a)	Herald of Library Science [July 72 - Oct 72]	31
(55b)	Library Trends [Oct 72 - Apr 73]	31
(57a)	Microform Review [Oct 72 - Apr 73]	28
(57b)	Texas Library Journal [Sept 72 - May 73]	28
(59a)	Accademie e Biblioteche d'Italia [Jan 71 - July-Oct 71]	27
(59b)	Biblioteksbladet [(1) 1971 - (5) 1971]	27
(59c)	South African Libraries [Apr 72 - Oct 72]	27
(62)	Oklahoma Librarian [Oct 72 - Apr 73]	26
(63a)	Australian Academic and Research Libraries [Sept 72 - Mar 73]	25
(63b)	Library Scene [Winter 72 - Winter 73]	25
(63c)	Nigerian Libraries [Apr-Aug 71 - Aug 72]	25
(63d)	YLG News [Winter 71 - Spring 73]	25

15-24 citations

(67a)	Bookmark [Sept 72 - Mar 73]	24
(67b)	Libri [(3) 1972 - (1) 1973]	24
(69a)	Assistant Librarian [Nov 72 - June 73]	23
(69b)	Hornbook Magazine [Dec 72 - Aug 73]	23
(69c)	PLA Bulletin (pennsylvania Library Association) [Sept 72 - Mar 73]	23
(69d)	Protean [June 71 - Dec 72]	23
(73a)	AIB Bollettino d'Informazioni [Jan 71 - Apr-Sept 71]	22
(73b)	Fontes Artis Musicae [Jan-Aug 72 - Sept 72]	22
(73c)	International Cataloguing [Jan/Feb 72 - Jan/Feb 73]	22

(73d)	Journal of Education for Librarianship /Fall 72 - Spring 73/	22
(73e)	New Zealand Libraries /Oct 72 - Feb 73/	22
(73f)	Sovetskaya Bibliografiya /(1) 1971 - (6) 1971/	22
(79a)	Journal of Library Automation /June 72 - Mar 73/	21
(79b)	Journal of Library History /Jan 73 - July 73/	21
(79c)	SLA News /Sept-Oct 72 - Mar-Apr 73/	21
(82a)	Book Collector /Spring 72 - Autumn 73/	20
(82b)	Booklist /15 Dec 72 - 1 Nov 73/	20
(82c)	International Association of Agricultural Librarians and Documentalists Quarterly Bulletin /(2) 1972 - (1) 1973/	20
(82d)	Quarterly Journal of the Library of Congress /Oct 72 - July 73/	20
(82e)	Tidskrift für Dokumentation /(1) 1971 - (6) 1971/	20
(87a)	Focus on Indiana Libraries /Fall 72 - Spring 73/	19
(87b)	IFLA News /Feb 72 - Aug 73/	19
(87c)	LACUNY Journal /Spring 72 - Spring 73/	19
(90a)	IPLO Quarterly (Institute of Professional Librarians of Ontario) / Jan 72 - June 73/	18
(90b)	Nebraska Library Association Quarterly /Summer 72 - Spring 73/	18
(90c)	News Notes of California Libraries /Winter 73 - Spring 73/	18
(90d)	Notes (Music Library Association) /Dec 72 - June 73/	18
(90e)	Private Library /Autumn 72 - Spring 73/	18
(95a)	Library Occurent /Nov 71 - Feb 73/	17
(95b)	Pakistan Library Bulletin /Mar-June 71 - Mar-June 72/	17
(97a)	Choice /Nov 72 - July-Aug 73/	16
(97b)	College & Research Libraries News /Sept 72 - June 73/	16
(97c)	Drexel Library Quarterly /Oct 72 - Jan-Apr 73/	16
(97d)	Idaho Librarian /Jan 72 - Oct 72/	16
(97e)	Mississippi Library News /Sept 72 - Mar 73/	16
(102a)	California School Libraries /Fall 72 - Spring 73/	15

(102b) FIC Newsletter [Mar 72 - Oct 72] 15

(102c) Louisiana Library Association Bulletin [Summer 72 - Winter 73] 15

10-14 citations

(105a) APLA Bulletin [Fall 72 - Spring 73] 14

(105b) Bollettino dell'Istituto di Patologia del Libro [Jan-July 71 - July-Dec 71] 14

(105c) Connecticut Libraries [Fall 72 - Apr 73] 14

(105d) Dartmouth College Library Bulletin [Apr 71 - Apr 73] 14

(105e) Learning Today [Fall 72 - Winter 73] 14

(105f) Magyar Könyvszemle [(1) 1971 - (4) 1971] 14

(105g) Microdoc [(3) 1972 - (2) 1973] 14

(105h) Scandinavian Public Library Quarterly [(3) 1972 - (1) 1973] 14

(105i) Texas Libraries [Winter 72] 14

(105j) Vermont Libraries [Sept 72 - Nov 72] 14

(105k) Western Association of Map Libraries Information Bulletin [June 72 - Mar 73] 14

(116a) Africana Library Journal [Spring 72 - Spring 73] 13

(116b) Barn och Kultur [(1) 1971 - (6) 1971] 13

(116c) Film Library Quarterly [Fall 72 - Spring 73] 13

(116d) Indian Librarian [June 72 - Dec 72] 13

(120a) British Columbia Library Quarterly [Oct 72-Jan 73 - Apr 73] 12

(120b) Information (Part 2) [Jan-Feb 72 - Jan-Feb 73] 12

(120c) Inspel [July-Oct 72 - Feb 73] 12

(120d) Ohio Library Association Bulletin [July 72 - Jan 73] 12

(120e) Previews (Library Journal/School Library Journal) [Apr 72 - Sept 73] 12

(120f) SBPR Boletin [Jan-June 72] 12

(126a) Bulletin des Bibliothèques de France [Sept-Oct 71 - Dec 71] 11

(126b) Harvard Library Bulletin [Oct 72 - July 73] 11

(126c)	Iowa Library Quarterly [Oct 72 - Apr 73]	11
(126d)	Library & Information Bulletin (Library Association) [(17) 1972 - (20) 1973]	11
(126e)	Michigan Librarian [Autumn 72 - Winter 72]	11
(126f)	School Librarian [Sept 72 - June 73]	11
(126g)	School Media Quarterly (Formerly School Libraries) [Summer 72 - Spring 73]	11
(126h)	Special Libraries Association. Geography and Map Division Bulletin [Sept 72 - Dec 72]	11
(126i)	Virginia Librarian [Fall-Winter 71 - Winter 72-73]	11
(126j)	Wyoming Library Roundup [Sept 72 - Dec 72]	11
(136a)	Journal of Librarianship [Oct 72 - Apr 73]	10
(136b)	Library History [Autumn 72 - Spring 73]	10
(136c)	North Carolina Libraries [Summer-Fall 72 - Winter 73]	10
(136d)	Picturescope [Spring 72 - Spring 73]	10
(136e)	PNLA Quarterly (Pacific Northwest Library Association) [Oct 72 - Jan 73]	10
(136f)	Tennessee Librarian [Fall 72 - Winter 73]	10
(136g)	Yale University Library Gazette [Oct 72 - July 73]	10

2-9 citations

(143a)	Archives [Oct 72 - Spring 73]	9
(143b)	La Bibliofilia [(1) 1969 - (3) 1971]	9
(143c)	Feliciter [Oct 72 - Mar 73]	9
(143d)	Newsletter on Intellectual Freedom [Nov 72 - July 73]	9
(147a)	Arkansas Libraries [Fall 72 - Winter 73]	8
(147b)	Bay State Librarian [Oct 72 - Feb 73]	8
(147c)	Indexer [Apr 72 - Oct 72]	8
(147d)	Law Librarian [Aug 72 - Dec 72]	8
(147e)	Southeastern Librarian [Winter 72]	8
(147f)	Utah Libraries [Fall 72]	8

(153a)	Columbia Library Columns [Nov 72 - May 73]	7
(153b)	Georgia Librarian [Oct 72 - Mar 73]	7
(153c)	New York Public Library Bulletin [vol.76 1972]	7
(156a)	BCLA Reporter [Oct-Nov 72 - Dec 72-Jan 73]	6
(156b)	Kentucky Library Association Bulletin [Oct 72 - Winter 73]	6
(156c)	Missouri Library Association Newsletter [June 72 - Oct 72]	6
(156d)	North Dakota Library Notes [Aug 72 - Feb 73]	6
(156e)	Serif [Winter 72 - Spring 73]	6
(161a)	AHIL Quarterly (Association of Hospital and Institution Libraries) [Fall 72 - Winter-Spring 73]	5
(161b)	American Theological Library Association Newsletter [12 Aug 72 - 17 Feb 73]	5
(161c)	Berita [(4) 1970 - (2) 1972]	5
(161d)	FID News Bulletin [15 Oct 72 - 15 Apr 73]	5
(161e)	Kansas Library Bulletin [(3-4) 1972]	5
(161f)	LARC Reports [(1) 1971 - (4) 1972]	5
(161g)	Library Chronicle [Feb 72 - Sept 72]	5
(161h)	Minnesota Libraries [Autumn 72 - Spring 73]	5
(161i)	New Jersey Libraries [Dec 72 - Mar 73]	5
(161j)	Nordisk Tidskrift för Bok-och Biblioteksväsen [(4) 1971]	5
(161k)	NYLA Bulletin (New York Library Association) [Summer 72 - Oct 72]	5
(172a)	Architectural Record [Apr 71 - Nov 71]	4
(172b)	Artibus Asiae [(1) 1970 - (1-2) 1971]	4
(172c)	Catalogue & Index [Autumn 72 - Winter 72]	4
(172d)	HLA Journal (Hawaii Library Association) [June 72]	4
(172e)	Library of Congress Cataloguing Service. Bulletin [Nov 72]	4
(172f)	New Mexico Libraries Newsletter [Mar 72 - Jan 73]	4
(172g)	Revista InterAmericana de Bibliografia [July-Sept 72 - Oct-Dec 72]	4
(179a)	Junior Bookshelf [Oct 72 - Apr 73]	3

(179b)	Leads [Aug 72 - June 73]	3
(179c)	Mountain Plains Library Quarterly [Fall 72]	3
(179d)	Museum (Unesco) [(1) 1970-71]	3
(179e)	Religious & Theological Resources [(1) 1970 - Oct-Dec 71]	3
(179f)	South Carolina Librarian [Fall 72 - Spring 73]	3
(185a)	American Journal of Pharmaceutical Education [Dec 72]	2
(185b)	Architectural Forum [Nov 71]	2
(185c)	Architectural Review [July 71]	2
(185d)	Art Bulletin [Mar 72 - June 72]	2
(185e)	Princeton University Library Chronicle [Winter 73]	2
(185f)	Public Library Trustee [May 72]	2
(185g)	South African Library Quarterly Bulletin [June 72 - Dec 72]	2
(185h)	Walters Art Gallery Journal [(29-30) 1966-1967 - (31-32) 1969-1969]	2

Plus 29 titles with 1 citation 29

Library Literature

Pericdical Coverage

Summary Table

Journals with:-	Number of Titles	Percentage of Total Titles	Number of Entries	Percentage of Entries for Periodicals*
1 citation	29	13%	29	0.5%
2-9 citations	50	23%	252	4.5%
10-14 citations	38	17%	458	9 %
15-24 citations	38	17%	741	14 %
25+ citations	66	30%	3837	72 %
	221	100%	5317	100 %

*Note. Excludes citations of one page only

Referativnyi Zhurnal: Informatika

Coverage of Periodical Articles - 1973

25 citations & over

(1)	Nauchno-Tekhnicheskaya Informatsiya [Series 1 (8) 1972 - Series 2 (7) 1973]	209
(2)	Nauchnye i Tekhnicheskie Biblioteki SSSR [(8) 1972 - (7) 1973]	135
(3)	Informatik [(4) 1972 - (4) 1973]	64
(4a)	Nachrichten für Dokumentation [Aug 72 - June 73]	60
(4b)	Sovetskaya Bibliografiya [(3) 1972 - (3) 1973]	60
(6a)	Bürotechnik Automatation + Organisation [(8) 1972 - (7-8) 1973]	48
(6b)	BZB - Burghagens Zeitschrift für Bürotechnik und Information [(9) 1972 - (6) 1973]	48
(8a)	BIT. Büro Informations Technik [(8) 1972 - (8) 1973]	46
(8b)	Bürotechnische Sammlung [(211-212) 1972 - (223) 1973]	46
(8c)	Special Libraries [July 72 - May/June 73]	46
(11a)	Journal of the American Society for Information Science [May-June 72 - May/June 73]	45
(11b)	Library of Congress Information Bulletin [(34) 1972 - (28) 1973]	45
(13)	Library Resources & Technical Services [Spring 72 - Spring 73]	44
(14a)	Československá Informatika [(7-8) 72 - (7-8) 73]	41
(14b)	Journal of Chemical Documentation [Aug 72 - May 73]	41
(16)	Aktualne Problemy Informacji i Dokumentacji [(6) 1971 - (1) 1973]	40
(17)	Information Storage and Retrieval [Oct 72 - Aug 73]	39
(18)	Aslib Proceedings [July 72 - June 73]	36
(19)	ADL-Nachrichten [(74) 1972 - (80) 1973]	35
(20)	Sovetskoe Bibliotekovedenie (Formerly Biblioteki SSSR) [(55) 1972 - (4) 1973]	31

(21a) Office [(5) 1971 - (6) 1973] 33

(21b) Technická Knihovna [(7-8) 1972 - (5) 1973] 33

(21c) Voprosy Izobretatel'stva [(10) 1972 - (8) 1973] 33

(24a) Tudományos és Müszaki Tájékoztatás [Mar 72 - Aug 73] 32

(24b) Tudományszervezési Tájékoztató [(5) 1972 - (3-4) 1973] 32

(26) Probleme de Informare şi Documentare [(7) 1972 - (5) 1973] 30

(27) Zentralblatt für Bibliothekswesen [Aug 72 - July 73] 29

(28) Bulletin du CIMAB [(8) 1972 - (7) 1973] 28

(29a) Unesco Bulletin for Libraries [Mar-Apr 72 - July-Aug 73] 27

(29b) Zeitschrift für Bibliothekswesen und Bibliographie [Sept-Oct 72 - Mar-Apr 73] 27

(31a) Informačný Bulletin. Slovenska Akademia Vied [?] 25

(31b) Informatsiya o Bibliotechnom dele i Bibliografii za Rubezhom [?] 25

15 - 24 citations

(33) Zyoho Kanri. Information and Documentation [(2) 1972 - (12) 1973] 24

(34a) College & Research Libraries [May 72 - May 73] 22

(34b) Library Association Record [Aug 72 - July 73] 22

(34c) Naukovedenie i Informatika [(8) 1973 - (9) 1973] 22

(37a) Journal of Documentation [Sept 72 - June 73] 21

(37b) Neue Technik im Büro [(5) 1972 - (3) 1973] 21

(39a) Bibliotekovedenie i Bibliografiya za Rubezhom [(42) 1972 - (45) 1973] 20

(39b) Burotechnik mit Betriebsführung [(8-9) 1972 - (5) 1973] 20

(39c) Library Trends [Oct 72 - Apr 73] 20

(39d) Prague Bulletin of Mathematical Linguistics [(13) 1972 - (19) 1973] 20

(43a) Dokumentesyon Kenkyu [Aug 72 - May 73] 19

(43b) Revista Bibliotecilor [?] 19

(43c) Tidskrift för Dokumentation [(4) 1972 - (2) 1973] 19

(46a)	Bibliotekar' (Moscow) [(11) 1972 - (7) 1973]	18
(46b)	Standarty i Kachestvo [(10) 1972 - (5) 1973]	18
(48a)	ANRT Information et Documentation [Apr 72 - Dec 72]	17
(48b)	Banques des Mots [?]	17
(48c)	Bulletin of the Medical Library Association [July 72 - April 73]	17
(48d)	Informačný a Metodický Spravodajca [?]	17
(48e)	Rechentechnik/Datenverarbeitung [(9) 1972 - (7) 1973]	17
(53a)	Bulletin des Bibliothèques de France [June 72 - Feb 73]	16
(53b)	Journal of Micrographics [Mar/Apr 72 - Nov/Dec 72]	16
(53c)	Kniznice a Vedecké Informácie [(2) 1972 - (1) 1973]	16
(53d)	Przeglad Biblioteczny [(1-4) 1971]	16
(57a)	Illinois Libraries [Apr 72 - May 73]	15
(57b)	Kantoor en Efficiency [(122-123) 1972 - (133) 1973]	15
(57c)	Könyvtáros [(2) 1972 - (7) 1973]	15
(57d)	NRCd Bulletin [Summer 72 - Autumn 72]	15
(57e)	Program [July 72 - July 73]	15

10 - 14 citations

(62a)	Voprosy Filosofii [(9) 1972 - (7) 1973]	14
(62b)	Zyoho Kagaku. Information, Information Processing, Information Retrieval	14
(62c)	Australian Library Journal [July 72 - June 73]	14
(65a)	IBM Nachrichten [(212) 1972 - (214) 1973]	13
(65b)	Sovetskie Archive [(5) 1972 - (4) 1973]	13
(65c)	TB Report für Technisches Büro [(4) 1972 - (2) 1973]	13
(65d)	Teorie a Metoda [?]	13
(65e)	Zagadnienia Naukonawstwa [(2) 1972 - (1) 1973]	13
(70a)	Archivmitteilungen [(4) 1972 - (3) 1973]	12
(70b)	Biblioteku Darbas [(7) 1972 - (6) 1973]	12

(70c)	Bibliotheksdienst [Oct 72 - Sept 73]	12
(70d)	Journal of Librarianship [July 72 - July 73]	12
(70e)	Information Retrieval & Library Automation Letter [(5) 1972 - (3) 1973]	12
(70f)	Knižničy Sbornik [?]	12
(70g)	Mechanizace a Automatizace Administrativy [(8) 1972 - (10) 1972]	12
(77a)	Bibliotekar (Sofia) [(10) 1972 - (5) 1973]	11
(77b)	Bibliotekarz [(4) 1972 - (3) 1973]	11
(77c)	Computer Praxis [(9) 1972 - (6) 1973]	11
(77d)	Microform Review [Jan 73 - Apr 73]	11
(77e)	Mitteilungen der Gesellschaft für Bibliothekswesen und Dokumentation des Landbaues [?]	11
(77f)	Schriftenreihe der Technischen Hochschule in Wien [?]	11
(77g)	Studii şi Cercetăre de Documentare [Sept 72 - June 73]	11
(77h)	Zeitschrift für Datenverarbeitung [(7) 1972 - (5) 1973]	11
(85a)	IMC Journal [(21) 1972 - (23) 1973]	10
(85b)	International Library Review [Oct 72 - Apr 73]	10
(85c)	Módszertani Körlevel [?]	10
(85d)	Rationelle Büro [(9) 1972 - (7) 1973]	10
(85e)	Rivista dell'Informazione [June/Aug 72 - Dec 72]	10
(85f)	Trudy Informatikov Litvi [?]	10
(85g)	Vestnik AN SSSR [?]	10
(92a)	Bibliographický Zbornik [?]	9
(92b)	Diagramm [?]	9
(92c)	Methods of Information in Medicine [Jan 73 - Apr 73]	9
(92d)	New Zealand Libraries [June 72 - June 73]	9
(92e)	Novy Knigi za Rubezhom [?]	9
(92f)	Prace Naukonawcze i Prognostyczne [?]	9

(92g)	Rechnungswesen, Datentechnik, Organisation [(2) 1973 - (5) 1973]	9
(99a)	Bibliotechno-bibliographicheskaya Bibliotek AN SSSR i Akademii Nauk Soyuzni Respublik [?]	8
(99b)	College & Research Libraries News [Sept 72 - July 73]	8
(99c)	Data Report Informationen [?]	8
(99d)	Documentaliste [Mar 72 - Dec 72]	8
(99e)	Nauchny Doklady Visshei Shkoly. Filosofskie Nauki [?]	8
(99f)	Pribory i Sistemy Upravleniya [?]	8
(99g)	Toshokan Zasshi [July 72 - Feb 73]	8
(106a)	Angewandte Informatik [?]	7
(106b)	Automatisme [(6-7) 1972 - (6-7) 1973]	7
(106c)	BLL Review (Formerly NLL Review) [Jan 73 - July 73]	7
(106d)	Ciência da Informação [(1) 1972 - (1) 1973]	7
(106e)	Foundations of Language [(2) 1972 - (4) 1973]	7
(106f)	Informatyka [(7-8) 1972 - (1) 1973]	7
(106g)	Management Informatics [(3-4) 1972 - (1) 1973]	7
(106h)	Organizacja, Metody, Technika [(7) 1972 - (10) 1972]	7
(106i)	Poligrafiya [?]	7
(106j)	Vedecke Informace ČSAV [(1-2) 1972]	7
(116a)	Bibliothekar [Sept 72 - May 73]	6
(116b)	Biblos (Austria) [(3) 1972 - (2) 1973]	6
(116c)	Cadernos de Biblioteconomia, Arquivistica e Documentação [(1) 1972 - (2) 1972]	6
(116d)	Etudes et Réalisations [(135) 1972]	6
(116e)	Informatique [(35) 1972 - (41) 1973]	6
(116f)	Mezögazdaságý es Elelmiszeripari Könyvtárosok Tájékoztatója	6
(122a)	Data Processing [(4) 1972 - (3) 1973]	5
(122b)	Education Libraries Bulletin [Autumn 72 - Spring73]	5
(122c)	FID/CAO Newsletter [(9) 1972 - (10) 1972]	5

(122d) Industrial and Commercial Photgrapher [(10) 1972 - (8) 1973] 5

(122e) Informačné Systémy [?] 5

(122f) Journal of the ACM [(2) 1972 - (4) 1972] 5

(122g) Kodak Mikrofilm Report [?] 5

(122h) Mitteilungsblatt (Verband der Bibliotheken des Landes Nordrhein-Westfalen) [Aug 72 - Mar 73] 5

(122i) Nature [18 May 73] 5

(122j) Poradnik Bibliotekarza [(7-8) 1972 - (4) 1973] 5

(122k) Rationalisierung [(7-8) 1972 - (11) 1972] 5

(122l) Research in Librarianship [(18) 1971 - Sept 72] 5

(122m) SLA News [Mar-Apr 73 - July-Aug 73] 5

(122n) Wilson Library Bulletin [Mar 73 - May 73] 5

(122o) Zagadnienia Informacji Naukowej [(2) 1972] 5

(122p) Zagadnienia Naukoznawstwa ODIIN PAN [?] 5

(138a) Bibliotecas y Archivos. Escuela Nacional de Biblioteconomia y Archivonomia [?] 4

(138b) Biblioteek Bydr. Staatsbibliotheek Pretoria [(13) 1972] 4

(138c) Californian Librarian [Apr 73] 4

(138d) Computer Studies in the Humanities and Verbal Behavior [(3) 1970 (sic) - (4) 1972] 4

(138e) DFW [May/June 73 - July 73] 4

**** No. deleted ****

(138g) IFLA News [(42) 1973 -(45) 1973] 4

(138h) Informaciones. Biblioteca de la Universidad Nacional de la Plata [?] 4

(138i) JOLA Technical Communications [(3) 1972 - (6) 1972] 4

(138j) Kibernetika [(4) 1972 - (3) 1973] 4

(138k) LARC Reports [(2) 1971 - (1) 1973] 4

(138l) Library Journal [15 Mar 73 - 1 May 73] 4

(138m) Metodicky Letak. UVTEI [?] 4

(138n)	Nauchnaya i Tekhnicheskaya Informatsiya za Rubezhom Sbornik / ? /	4
(138o)	OSTI Newsletter [(3) 1972 - (2) 1973]	4
(138p)	Photgraphic Science and Engineering [(1) 1973 - (3) 1973]	4
(138q)	Physics Bulletin [23 Sept 72]	4
(138r)	Printing Magazine [(8) 1972; (5) 1973]	4
(138s)	Rapport NTH Biblioteket Universitetet Trondheim [?]	4
(138t)	Sofutowa Kagaku. Software Science [(11) 1972]	4
(138u)	TA Informations [(2) 1972 - (1) 1973]	4
(138v)	Tsentral'ni Nauchno-issledovatel'skii Institut Tekhnologii Mashinostroeniya. Trudi	4
(138w)	Zeitschrift für Organisation [?]	4
(161a)	Büroausrüstung [?]	3
(161b)	Büromashinen Technik [?]	3
(161c)	Computer Decisions [(8) 1972 - (4) 1973]	3
(161d)	Cuadernos de Información Cientifica [?]	3
(161e)	Datamation [(4) 1973]	3
(161f)	Engineering Materials and Design [(4) 1973]	3
(161g)	ICSU Bulletin [(25) 1971; (28) 1972]	3
(161h)	Indexer [Oct 72]	3
(161i)	Kagaku Gizyutsu Bunken Sabisu. (Science and Technology Information Service) [?]	3
(161j)	Linguistica Antverpiensia [(5) 1971]	3
(161k)	Microfiche Foundation Newsletter [(25) 1973]	3
(161l)	Modern Datateknik [(11) 1972 - (4) 1973]	3
(161m)	Monotype Bulletin [(87) 1972]	3
(161n)	National Diet Library Monthly Bulletin [(135) 1972 - (146) 1973]	3
(161o)	New Library World [May 73; Aug 73]	3
(161p)	NFAIS Newsletter [(1) 1973 - (3) 1973]	3
(161q)	Pensiero e Linguagio in Operazioni [(10) 1972 - (11-12) 1973]	3

(161r)	PLA Bulletin [Jan 73 - May 73]	3
(161s)	Poligrafika [(7) 1972; (9) 1972]	3
(161t)	Polytechnish Tijdschrift [?]	3
(161u)	Printing Equipment and Materials [(104) 1972 - (109) 1973]	3
(161v)	Reproduktie [?]	3
(161w)	Semiotika [(3) 1972) - (4) 1973]	3
(161x)	Statistical Methods in Linguistics [(8) 1972]	3
(161y)	Systèmes d'Informatique [?]	3
(187a)	American Scientist [(1) 1973; (3) 1973]	2
(187b)	Associazione Italiana Biblioteche Bollettino d'Informazioni [Jan-Mar 72; Oct-Dec 72]	2
(187c)	ASIS Newsletter [(6) 1972 - (2) 1973]	2
(187d)	Assistant Librarian [Jan 73; Mar 73]	2
(187e)	Association des Bibliothécaires Français. Bulletin d'Informations [(76) 1972; (77) 1972]	2
(187f)	Bell Laboratories Record [(2) 1972; (10) 1972]	2
(187g)	Bibliography, Documentation, Terminology [Nov 72 - May 73]	
(187h)	British Printer [(1) 1973; (4) 1973]	2
(187i)	Cahiers de la Documentation [(3) 1972]	2
(187j)	Canadian Univ and Coll [(2) 1973]	2
(187k)	Data Processing Magazine [(1) 1972]	2
(187l)	Fact Equip News [(361) 1973]	2
(187m)	Herald of Library Science [Apr 72; July 72]	2
(187n)	IBM Journal of Research and Development [(3) 1972]	2
(187o)	Informatie [(11) 1972; (2) 1973]	2
(187p)	Information - Pt. 1 [Jan-Feb 73 - Mar-Apr 73]	2
(187q)	Information Processing Japan [(1972)]	2
(187r)	Information Sciences [(1) 1973]	2
(187s)	Infosystems [(9) 1972 - (10) 1972]	2
(187t)	Laboratory Equipment Digest [(7) 1973]	2

(187u)	LARC Newslette[illegible] [(3) 1973; (4) 1973]	2
(187v)	Law & Computer Technology [(1) 19731 (3) 1973]	2
(187w)	Library Quarterly [July 72 - Oct 72]	2
(187x)	Lithoprinter [Oct 72; Jan 73]	2
(187y)	Management Science [(1) 1972; (8) 1983]	2
(187z)	National Diet Library Newsletter [(34) 1972; (35) 1972]	2
(187za)	North Carolina Libraries [Winter 73]	2
(187zb)	Noticias, Conselho nacional de pesquisas. Institutio Brasileiro de Bibliografia e Documentação [(1) 1973 - (5-6) 1973]	2
(187zc)	Překlady z Odborné Literatury [(12) 1971; (6) 1973]	2
(187zd)	Printing Impression [(3) 1972]	2
(187ze)	Reproduction [(6) 1972]	2
(187zf)	Reprographics [(10) 1972; (1) 1973]	2
(187zg)	Science Policy [(3) 1973; (4) 1973]	2
(187zh)	Translation News [(4) 1972; (1) 1973]	2
(187zi)	Voprosy Yazikoznaniya [(6) 1972; (4) 1973]	2
(187zj)	World Index of Scientific Translations and list of Translations Notified to ETC [(1) 1973 - (2) 1973]	2
Plus 70 titles with 1 citation		70
Plus 15 titles (unidentified) with 98 citations		98
Plus 25 titles (unidentified) with 157 citations		157

RZI

Periodical Coverage

Summary Table

	Number of Titles	Percentage of Total Titles	Number of Abstracts	Percentage of Abstracts for Periodicals
+Unidentified Titles	40	12%	255	8%
Journals with 1 citation	70	21%	70	2%
2-9 citations	130	39%	547	17%
10-14 citations	30	9%	349	11%
15-24 citations	29	9%	529	16%
25+ citations	32	10%	1516	46%
	331	100%	3266	100%

+Note. See explanation in Chapter 4 p. 20-21

CHAPTER 7

CORE PERIODICALS

Surveys of the secondary services in our field have usually attempted to list the most important periodicals covered and some comment is necessary in this report about such core titles. Strictly speaking, it seems to the present investigator that the use of secondary services to generate core lists is slightly outside the scope of a "comparative survey" of the services. Core lists tell us more, perhaps, about the primary literature than the services covering it. However, the collection of the requisite data during this survey presents a good opportunity for comparisons with the previous work in this area.

The concept of a list of core periodicals has value for any subject field. Core journals are titles which command a prestige sufficient to attract wide readership. Authors will turn naturally to them in order to make known the results of significant investigations, important theoretical advances and similar work of lasting worth. The editorial procedures employed by the journals act as a sieve to ensure a high standard of published material and their circulations are at a level capable of supporting continuous, regular publication.

For bibliographical control purposes a list of core periodicals has some importance, although this is not to say that such a list should necessarily be generated from the tools used for bibliographical control. Work in the scientific and technical fields has led to the discovery that core journals can provide over 90% of the articles worth covering by secondary services. For example, Martyn and Gilchrist (1) used data obtained from the Science Citation Index to show that 9% of the total UK periodicals in science and technology covered by the service provided over 95% of the citations. The implications for producers and users of the secondary services are clear enough. The adequacy of the services can be judged with respect to such a list; administrative matters, e.g., cost calculations and the provision of adequate levels of staffing, can be related to the number of titles that the core contains; overlap between services can be readily investigated; rationalisation is possible; and users can be certain that the core journals are comprehensively covered.

Core Lists for Library and Information Science

The question is can a core list be generated for library and information science. Goldstein has expressed doubt concerning the procedures used to date:-

> "It seems to me that we simply do not know enough, or at least that we do not yet have the requisite definitional framework, to identify the core journal literature in library and information science, and especially to do so in terms of abstracting and indexing title coverage." (2)

Lists of core journals for our field have been compiled by ascertaining the titles covered by all the secondary services under investigation at any one time, and by citation counts in both the primary and secondary literature leading to the discovery of "high productivity" journals. These techniques have been leavened by allowances for journal size and by subjective judgements. Comparison of the attempts

made indicates that at a level of about fifty titles the lists show variations and some surprises. In addition, there is little data over an extended period of time about the percentage of articles provided by these periodicals in comparison with the rest of the periodicals in the field.

The underlying problem is whether techniques that have enjoyed some success in the scientific and technical fields can safely be transferred to library and information science. Our profession is relatively new in its present form, contains a small number of members, and carries very little economic weight. It is oriented towards literature and recorded matter generally. There is also a characteristic dependence on social institutions which tend to differ in the world's various regions. In the present writer's view, these factors create especial difficulties for the concept of core periodicals.

For instance, many valuable special interest journals have been established for our profession with a fairly low annual number of articles. Examples are Information Scientist and Library History. If the criteria of high productivity and coverage by all the secondary services under study in this report are applied to these titles neither would qualify as a core title. Yet in terms of content, journal format and professional approach, albeit by voluntary staff, these are important titles in our field. One also suspects that there would be a large measure of agreement on intuitive grounds that these titles make a fundamental contribution to the advancement of the profession.

The social institution/regional difficulty is exemplified by the title South African Libraries. Despite its name, this periodical covers information work as much as libraries and yet half of the services under investigation do not include it in their coverage.

Once again, the lack of definition for a term in our field is a barrier. What is a core periodical for a developing profession?

There are other difficulties in the application of classical bibliometric techniques to the coverage of periodicals in our secondary services. Each service works on a different sub-set of the primary literature both in terms of the periodical (and monograph) titles covered and also because for any given publication period of the secondary services the time delays vary significantly. For example, the abstracts entered in the 1973 issues of ISA for Nachrichten für Dokumentation do not cover the same articles as the RZI entries in 1973 for the title with obvious implications for its status within ranking lists. This is clear from consulting the lists given in Chapter 6. On ISA's list Nachrichten is placed 23rd with 14 citations. RZI has the journal placed 4th with 60 citations. Whilst RZI's large number of citations might be affected by the policy of covering shorter items and book reviews, these placings are also influenced by the fact that the Russian service covered the Aug 72 - June 73 issues of Nachrichten whereas ISA abstracted only the Aug 72 - Jan 73 issues.

In addition to all these problems each bibliometric survey undertaken concerning secondary services in library and information science has selected different services for investigation. This has affected the core lists derived by the criterion of "coverage in all the services".

The Present Survey's Approach

In spite of the doubts expressed above, some attempt is made here to compile a core list. The approach, based on the ranking lists given in Chapter 6, takes the following form. (1) A list is given of the periodical titles cited a total of 100 times and over in the 1973 issues of the five abstracting services, i.e., the total citations made in each service are added together. The citations may or may not refer to the same articles - it is not the purpose of this listing to show the separate items covered, merely the weight of importance that the services attach to a title. This is the "high productivity" criterion. (2) A comparison is made with the lists compiled by Gilchrist [3] in 1971 and Dansey [4] in 1973 and the titles common to all three lists are isolated. (3) The titles remaining on the two earlier lists are determined and their treatment in the 1973 issues of the abstracting services shown. (4) Attempts are made to bring in more journals to the "100-plus" list by introducing other criteria, i.e., coverage by most of the services and/or a "medium" level of productivity. (5) A new, revised core list is generated based on the previous work by Gilchrist and Dansey and the present investigation. (6) The number and percentage of periodicals required by each service to provide 90% of the periodical articles abstracted is determined using the summary tables given in Chapter 6.

It is hoped that this procedure succeeds in applying one set of criteria at a time to the ranking lists.

A few further comments are necessary. LL has not been included mainly because it is an indexing service but also because it was not examined by Gilchrist and Dansey. The present writer has a personal antipathy towards the inclusion of general periodicals such as Nature and Science in lists of core journals for library and information science and this will be judged sufficient reason for excluding these titles, although they appear on the lists compiled by Gilchrist and Dansey. Thirdly, it should be pointed out that high productivity core journals for the individual services have already been isolated by this survey in the ranking lists displayed in Chapter 6.

High Productivity Journals Covered by the Abstracting Services

Table 11 shows the 17 journals cited most often, i.e., over 100 times, by the five abstracting services taken together. Of the 17 titles, 12 are common to both Gilchrist's 1971 list of 51 core titles and Dansey's main list of 40 core titles in 1973. These 12 common titles are shown in Table 12. 10 of them achieved over 100 times of citation in Dansey's list which covered only four abstracting services (this part of Dansey's survey excluded CCA). The other two are Information Storage and Retrieval, which would probably have reached 100-plus citations if CCA had been included in the Dansey listing, and College & Research Libraries.

	Total Number of Times Cited in 1973	BS	CCA	ISA	LISA	RZI	[Entries in LL]
(1) Nauchno-Tekhnicheskaya Informatsiya	846	207	167	199	64	209	[50]
(2) Journal of the American Society for Information Science	332	81	66	88	52	45	[53]
(3) Special Libraries	272	57	32	78	59	46	[89]
(4) Journal of Chemical Documentation	235	45	65	54	30	41	[-]
(5) Information Storage and Retrieval	189	41	40	34	35	39	[50]
(6) Library Resources & Technical Services	178	41	22	38	33	44	[64]
(7a) Aslib Proceedings	173	46	38	30	45	36	[54]
(7b) Library Journal	173	38	-	40	91	4	[323]
(9) Nachrichten für Dokumentation	161	33	24	14	30	60	[-]
(10) Informatik	152	30	33	-	25	64	[-]
(11) Aktualne Problemy Informacji i Dokumentacji	145	38	42	9	16	40	[-]
(12) Nauchnye i Tekhnicheskie Biblioteki SSSR	136	-	1	-	-	135	[-]
(13a) Bulletin of the Medical Library Association	135	25	7	61	25	17	[47]
(13b) Unesco Bulletin for Libraries	135	35	13	27	33	27	[59]

Table 11: High Productivity Journals Covered by the Abstracting Services - 17 Titles

Table 11: High Productivity Journals Covered by the Abstracting Services - 17 Titles

	Total Number of Times Cited in 1973	BS	CCA	LISA	LISA	RZI	[Entries in LL]
(15) College & Research Libraries	119	26	3	42	26	22	[88]
(16a) Library Trends	104	26	-	28	30	10	[31]
(16b) Zentralblatt für Bibliothekswesen	104	54	-	-	41	29	[126]
Total Citations in Each Service		803	553	722	633	868	
Percentage of Periodical Articles Cited in the Service		38%	52%	47%	25%	27%	
Number of Titles Covered in this List		16	14	14	16	17	
Total Number of Titles Covered in the Service		320	177	247	210	331	
Percentage of Titles in this List of the Total Number of Titles		5%	8%	6%	8%	5%	

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Table 11: High Productivity Journals Covered by the Abstracting Services - 17 Titles

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Table 12: High Productivity Journals Common to the Lists of Gilchrist, Dansey and Edwards

Aktualne Problemy Informacji i Dokumentacji

Aslib Proceedings

College & Research Libraries

Information Storage & Retrieval

Journal of Chemical Documentation

Journal of the American Society for Information Science

Library Journal

Nachrichten für Dokumentation

Nauchno-Tekhnicheskaya Informatsiya

Special Libraries

Unesco Bulletin for Libraries

Zentralblatt für Bibliothekswesen

CRL is a title which produces just about 25 substantial articles a year and the Dansey figure of 66 for the title from four services may have been due to uneven coverage from ISA. This up-and-down treatment is clearly shown in the present report by Table 11 which gives 42 items abstracted by ISA for this title in 1973; these were, in fact, made from two years' issues of CRL, July 71 - May 73. CCA also demonstrates a rather cavalier approach to this title.

The remaining five titles in Table 11 not common to all three lists are:-

Bulletin of the Medical Library Association

Informatik

Library Resources & Technical Services

Library Trends

Nauchnye i Tekhnicheskie Biblioteki SSSR

The Bulletin of the Medical Library Association and Library Resources & Technical Services appear on neither of the previous lists, although Gilchrist suggested that his "somewhat subjective list" should have them added. Dansey provides a back-up list of 18 journals to his 40 core titles by determining the titles frequently cited by three of his four services. This gives admission to the core for both the Bulletin and LRTS.

Informatik is included in Dansey's 40-journal core with 155 citations but is not on Gilchrist's list.

Library Trends is on Gilchrist's list and is credited on Dansey's back-up list with 92 times of citation.

The unique title in Table 11 is Nauchaye i Tekhnicheskie Biblioteki SSSR which achieves its position here solely on the basis of citations in RZI.

It is now suggested that the present work, together with that of Gilchrist and Dansey, demonstrates that the titles listed in Table 11 constitute the "high productivity core" of library and information science.

It is of interest to examine the performance of the services with respect to the list. With the exception of RZI, they all need to look at Nauchnye i Tekhnicheskie Biblioteki SSSR for possible coverage. Apart from this, BS and LISA appear to give solid coverage to all the titles, although LISA should improve its figure for Nauchno-Tekhnicheskaya Informatsiya. CCA is a little thin on some of the titles and, in 1973, omitted Library Journal, Library Trends and Zentralblatt für Dokumentation was not covered as promptly as the other services. The real surprise in ISA's performance is the poor coverage of Aslib Proceedings; only four issues were abstracted in 1973 - those for Oct-Dec 72 and for July 73.

Titles Remaining on the Lists of Gilchrist and Dansey

Table 13 shows the 56 titles remaining from the lists compiled by Gilchrist (51 titles) and Dansey (40 titles plus 18 back-up titles). The treatment of these 56 titles by the five abstracting services in 1973 is also indicated, with data for

LL given in the table but not added to the total times of citation.

On the basis of Table 14 it would appear that some 24 titles are candidates for relegation from core journal status.

The Addition of More Journals to the High Productivity Core

The 17 high productivity titles listed in Table 11 constitute the middle of a core. It provides, on the evidence of the 1973 issues, no more than 47% of the periodical articles abstracted in one service (ISA) and for RZI and LISA less than 30%. Clearly attempts must be made to add more titles.

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Table 13: 56 Titles Remaining after the Extraction of High Productivity Journals on the Lists of Gilchrist and Danny and their Treatment in 1973

	Total Number of Times Cited in Abstracting Services 1973	BS	CCA	ISA	LISA	RZI	[Entries in LL]
American Libraries	41	8	-	5	28	-	[184]
Angewandte Informatik	14	4	1	2	-	7	[-]
Annals of Library Science and Documentation	18	10	-	6	2	-	[-]
ANRT Information et Documentation	44	21	3	-	3	17	[-]
Australian Library Journal	58	-	-	-	44	14	[113]
Bibliotekar' (Moscow)	56	24	-	-	14	18	[61]
Bibliotekarz	34	-	-	-	23	11	[38]
Bibliothekar	33	-	-	-	27	6	[61]
Biblos (Japan)	-	-	-	-	-	-	[-]
Bulletin des Bibliothèques de France	56	21	-	-	19	16	[11]
Bulletin du CIMAB	51	23	-	-	-	28	[-]

	Total Number of Times Cited in Abstracting Services 1975	BS	CCA	ISA	LISA	MZI	[Entries in LL]
Canadian Library Journal	34	-	-	-	34	-	[80]
Československá Informatika	67	-	28	5	13	41	[-]
Communications of the ACM	9	1	3	5	-	-	[-]
Computers and Automation	11	10	-	1	-	-	[-]
Computers and the Humanities	8	4	-	4	-	-	[-]
Datamation	13	-	1	9	-	3	[-]
DFW	37	16	-	-	17	4	[-]
DK-Mitteilungen	2	-	-	-	2	-	[-]
Documentaliste	36	15	6	2	5	8	[-]
Dokumentesyon Kenkyu	53	19	-	15	-	19	[-]
IEEE Transactions on Professional Communications	20	7	10	1	1	1	[-]
Indexer	22	8	-	-	11	3	[8]
Indian Librarian	14	-	1	-	13	-	[13]

	Total Number of Times Cited in Abstracting Services 1973	BS	CCA	ISA	LISA	RZI	[Entries in LL]
Information - Pts. 1 & 2	40	2	6	11	19	2	[12]
Information and Control	1	1	-	-	-	-	[-]
Information Scientist	48	14	6	18	10	-	[-]
Informatique et Gestion	8	7	-	-	-	1	[-]
Inspel	15	10	-	-	5	-	[12]
International Library Review	73	23	-	10	30	10	[34]
Journal of Documentation	86	18	16	17	14	21	[67]
Journal of Librarianship	72	17	10	12	21	12	[11]
Journal of Library Automation	47	23	8	10	6	-	[22]
Journal of Micrographics	73	11	24	11	11	16	[-]
Journal of the ACM	6	-	1	-	-	5	[-]
Knižnice a Vedecké Informácie	38	-	[illegible]	-	14	16	[-]
Library Association Record	82	-	9	-	[illegible]	22	[93]
Library Quarterly	35	9	2	10	12	2	[69]

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	Total Number of Times Cited in Abstracting Services 1973	BS	CCA	ISA	LISA	RZI	[Entries in LL]
Libri	45	15	-	1	28	1	[25]
Methods of Information in Medicine	27	6	-	9	3	9	[-]
Microdoc	12	9	1	-	1	1	[15]
Nature	9	3	-	-	1	5	[-]
New Library World	47	-	-	-	44	3	[66]
Probleme de Informare şi Documentare	81	-	25	12	14	30	[-]
Program	73	20	19	-	19	15	[-]
Publishers' Weekly	9	-	-	6	3	-	[156]
Reprographie	-	-	-	-	-	-	[-]
Rivista dell'Informazione	30	10	3	-	7	10	[-]
Science	16	2	2	9	2	1	[-]
Sovetskoe Bibliotekovedenie	68	19	-	-	15	34	[-]
Studii şi Cercetări de Documentare	58	12	11	6	18	11	[-]
Technická Knihovna	57	-	7	9	8	33	[-]

	Total Number of Times Cited in Abstracting Services 1973	BS	CCA	ISA	LISA	RZI	[Entries in LL]
Tidskrift för Dokumentation	55	17	12	-	7	19	[20]
Tudományos és Müszaki Tájékoztatás	71	-	15	17	7	32	[-]
Wilson Library Bulletin	56	-	-	10	41	5	[103]
Zeitschrift für Bibliothekswesen und Bibliographie	77	24	-	-	26	27	[-]

Table 13: 56 Titles Remaining after the Extraction of High Productivity Journals on the Lists of Gilchrist and Bansey and their Treatment in 1973

Table 14: Candidates for Omission from the Core Lists of Gilchrist and Dansey based on the 1973 Data

	Reason for Omission
American Libraries	Coverage by only 3 services
Annals of Library Science and Documentation	Coverage by only 3 services Low level of citation
Bibliotekarz	Coverage by only 2 services
Bibliothekar	Coverage by only 2 services
* Biblos (Japan)	Not covered
Canadian Library Journal	Coverage by only 1 service
Communications of the ACM	Coverage by only 3 services
Computers and Automation	Coverage by only 2 services
Computers and the Humanities	Coverage by only 2 services
Datamation	Coverage by only 3 services
DFW	Coverage by only 3 services
DK-Mitteilungen	Coverage by only 1 service
Indexer	Coverage by only 3 services Low level of citation
Indian Librarian	Coverage by only 2 services Low level of citation
Information and Control	Coverage by only 1 service
Informatique et Gestion	Low level of citation
Inspel	Coverage by only 2 services
Journal of the ACM	Low level of citation
Knižnice a Vedecké Informácie	Coverage by only 3 services
Nature	Not library/information science
New Library World	Coverage by only 2 services
Publishers' Weekly	Not library/information science
Reprographie	Not covered
Science	Not library/information science

*Note. There appeared to be some confusion in the services between Biblos (Japan) and Biblos (Austria).

TOTAL 24 TITLES

The application to Table 13 of the double criterion of reasonably high productivity, say 50+ times of citation, coupled with coverage by at least four of the abstracting services produces the following additions to Table 11:-

Československá Informatika
International Library Review
Journal of Documentation
Journal of Librarianship
Journal of Micrographics
Probleme de Informare şi Documentare
Program
Studii şi Cercetare de Documentare
Technická Knihovna
Tidskrift för Dokumentation
Tudományos és Műszaki Tájékoztatás

Medium-level productivity, regardless of the number of services covering the title, can also be applied to the titles in Table 13 to introduce more periodicals to the core. The following titles have a total of over 50 times of citation:-

Australian Library Journal
Bibliotekar' (Moscow)
Bulletin des Bibliothèques de France
Bulletin du CIMAB
Dokumentesyon Kenkyu
Library Association Record
Sovetskoe Bibliotekovedenie
Wilson Library Bulletin
Zeitschrift für Bibliothekswesen und Bibliographie

Several highly regarded titles are introduced here, but it is with this small list that one's doubts about the method recur. If Australian Library Journal is to be included in a core list why not Canadian Library Journal, New Zealand Libraries and South African Libraries?

Finally, in this enrichment process, the application of the criterion of coverage in at least four of the abstracting services brings in the following further titles:-

Angewandte Informatik
ANRT Information et Documentation
Documentaliste
IEEE Transactions on Professional Communications
Information
Information Scientist
Journal of Library Automation
Library Quarterly
Libri
Methods of Information in Medicine
Microdoc
Rivista dell'Informazione

Again, one feels instinctively that titles such as Documentaliste, Information Scientist and Library Quarterly must be a part of any core list for our field. Libri should, of course, be on the 100-plus list - the 28 articles covered by LISA ought to have been abstracted by the other services during 1973 (the figures of 1 each for ISA and RZI are astonishingly low and one wonders whether the journal had distribution problems). The Journal of Library Automation is known to have had production problems and in any normal year would have published well over fity articles. But, once more, the doubts arise. Should a journal, however valuable the contents of individual issues, be a part of the core if it does not appear for several months? Further, on the above list, it is true that Angewandte Informatik is covered by four of the five services but it is cited a total of only 14 times and is it really "our" journal? It should be noted that Science has deliberately been omitted here because it cannot be considered a library/information science journal.

A Revised Core List

With the above-mentioned strictures in mind, the present investigator feels some reluctance about generating yet another core list of periodicals for our field. However, perhaps at this stage of development it is necessary to look fairly often at progress and an attempt, at least, has been made to correlate the data gathered here with that obtained by earlier research.

The 49 journals listed in Table 15 are,therefore, offered tentatively as a new core list. One feels some qualms concerning several of the titles although the statistical evidence has been outlined above. A number of familiar titles are missing - Journal of Education for Librarianship, Sovetskaya Bibliografiya, special interest journals like the ARLIS Newsletter of the Art Libraries Society, but future work will no dount lead to the derivation of the criteria necessary to include such titles. Perhaps along the lines of different sets of core titles, e.g., the "high productivity" core, the "regional/country" core, the "special interest" core.

Table 15: 49 Core Journals based on the Lists of Gilchrist (1971), Dansey (1973) and the Present Investigation

Aktualne Problemy Informacji i Dokumentacji	Poland
Angewandte Informatik	West Germany
ANRT Information et Documentation	France
Aslib Proceedings	UK
Australian Library Journal	Australia
Bibliotekar' (Moscow)	USSR
Bulletin des Bibliothèques de France	France
Bulletin du CIMAB	France
Bulletin of the Medical Library Association	USA
Československá Informatika	Czechoslovakia
College & Research Libraries	USA
Documentaliste	France
Dokumentesyon Kenkyu	Japan
IEEE Transactions on Professional Communication	USA
Informatik	East Germany
Information	USA
Information Scientist	UK
Information Storage & Retrieval	UK
International Library Review	USA
Journal of Chemical Documentation	USA
Journal of Documentation	UK
Journal of Librarianship	UK
Journal of Library Automation	USA
Journal of Micrographics	USA
Journal of the American Society for Information Science	USA
Library Association Record	UK
Library Journal	USA
Library Quarterly	USA
Library Resources & Technical Services	USA
Library Trends	USA
Libri	International
Methods of Information in Medicine	West Germany

Microdoc	UK
Nachrichten für Dokumentation	West Germany
Nauchno-Tekhnicheskaya Informatsiya	USSR
Nauchnye i Tekhnicheskie Biblioteki SSSR	USSR
Probleme de Informare şi Documentare	Romania
Program	UK
Rivista dell'Informazione	Italy
Sovetskoe Bibliotekovedenie	USSR
Special Libraries	USA
Studii şi Cercetare de Documentare	Romania
Technicka Knihovna	Czechoslovakia
Tidskrift för Dokumentation	Sweden
Tudományos és Müszaki Tájekóztatás	Hungary
Unesco Bulletin for Libraries	International
Wilson Library Bulletin	USA
Zeitschrift für Bibliothekswesen und Bibliographie	West Germany
Zentralblatt für Bibliothekswesen	East Germany

Language Summary of Table

English	25	Hungarian)	
German	5	Italian)	
French	4	Japanese)	- 1 each
Russian	4	Polish)	
Czech	2	Scandinavian)	
Polyglot	2		
Romanian	2		

A start might be made on such an approach by examining the titles listed under the category, 25 citations & over, in the ranking lists of Chapter 6. In effect, these constitute the core titles for the 1973 issues of each service. It would be of value to take the titles that have not been admitted to the 49 core journals given here, e.g., on RZI's list, Bürotechnische Sammlung and Sovetskaya Bibliografiya, in order to see how they are treated in the other services. Such work might lead to a "bibliographical" core and an "office management/data processing" core.

It would be of interest also to know how many articles the 49-title list is capable of producing in a year. In the appendix to this report, beginning on p. 174 attempts are made to give notional "best" figures for the 1973 coverage of articles in each periodical title discovered in this survey. At the end of the appendix, the relationship of the total figure generated to the number of articles provided by the 49 core titles is discussed.

Table 16: The Relationship between Number of Times of Citation and Percentage of Abstracts for Periodicals

		BS	CCA	ISA	LISA	RZI
Journals with 1 citation	% of Total Titles	52%	50%	56%	20%	21%
	% of Abstracts for Periodicals	8%	9%	9%	2%	2%
Journals with 2-9 citations	% of Total Titles	31%	35%	29%	43%	39%
	% of Abstracts for Periodicals	18%	21%	20%	17%	17%
Journals with 10-14 citations	% of Total Titles	3%	5%	6%	8%	9%
	% of Abstracts for Periodicals	6%	9%	11.5%	8%	11%
Journals with 15-24 citations	% of Total Titles	8%	4%	4%	12%	9%
	% of Abstracts for Periodicals	24%	11%	10.5%	19%	16%
Journals with 25+ citations	% of Total Titles	6%	6%	5%	17%	10%
	% of Abstracts for Periodicals	44%	50%	49%	54%	46%
Unidentified Titles	% of Total Titles	-	-	-	-	12%
	% of Abstracts for Periodicals	-	-	-	-	8%

Note. For the actual figures see the Summary Tables given in Chapter 6 at the end of each service's ranking list.

It will be remembered that the work in the scientific and technical field has shown that a very small percentage of periodical titles is capable of providing 90% of the articles covered by a secondary service. The present survey does not show any evidence that our field displays the same characteristics.

Calculations based on the Summary Tables given in Chapter 6 (for convenience, the percentage figures for each grouping of citations is repeated in Table 16) show the following results:-

	Number of Titles needed for 90% coverage of the Periodical Articles Abstracted	% of Total Titles Covered by the Service
BS	132	41%
CCA	80	45%
ISA	102	41%
LISA	104	50%
RZI	221	67%

References

1. Martyn, J. and Gilchrist, A. An evaluation of British scientific journals. London, Aslib, 1968. (Occasional paper no. 1)

2. Goldstein, S. Statistical bibliography and library periodical literature - part 4: 1972 abstracting, indexing, and contents coverage of library and information science periodicals. CALL (Current Awareness - Library Literature), 2 (4) July-August 1973, p. 4.

3. Gilchrist, A. and Presanis, A. Library & Information Science Abstracts: the first two years. Aslib Proceedings, 23 (5) May 71, p. 254.

4. Dansey, P. A bibliometric survey of primary and secondary information science literature. Aslib Proceedings, 25 (7) July 73, p. 259.

CHAPTER 8

OVERLAP OF PERIODICAL TITLES

It is now necessary to look more closely at the number of periodical titles which the services have in common. Previous work leads to the supposition that the figure for coverage by all six services is likely to be low and this has proved to be the case. The situation has been accentuated, perhaps, by the addition of LL to the present work.

Table 17 is based on the titles actually cited by the secondary services during 1973. Of the 961 titles discovered (it will be remembered that some foreign language titles appearing in RZI could not be identified) only 13 were covered by all six services. Ther yare:-

Aslib Proceedings
Bulletin of the Medical Library Association
College & Research Libraries
Information (Parts 1 and 2)
Information Storage & Retrieval
Journal of Documentation
Journal of Librarianship
Journal of the American Society for Information Science
Library Quarterly
Library Resources & Technical Services
Nauchno-Tekhnicheskaya Informatsiya
Special Libraries
Unesco Bulletin for Libraries

It is noteworthy that the list contains only one non-English language journal.

The only inclusion that causes slight pause for thought is Information.

Table 17: Number of Services Citing Each Periodical Title

Coverage by:-	Number of Titles	[*Dansey 1973]	Percentage of Total Number of Periodicals	[*Dansey 1973]
1 service	692	[747]	72%	[75%]
2 services	144	[143]	15%	
3 services	61	[58]	6%	
4 services	32	[40]	3%	
5 services	19		2%	
6 services	13		2%	
	961	[988]	100%	

*BS, LISA and RZI only

This title does, however, have highly respectable antecedents and in its present form has quickly established itself with a series of useful profiles of information centres.

In addition to these 13 titles, a further 9 were covered by all five abstracting services in 1973:-

Aktualne Problemy Informacji i Dokumentacji
Documentaliste
IEEE Transactions on Professional Communications
Journal of Chemical Documentation
Journal of Micrographics
Methods of Information in Medicine
Nachrichten für Kokumentation
Science
Studii şi Cercetări de Documentare

This list succeeds in adding some foreign language titles, but there are still surprising omissions. Various combinations of 5 of the services produce more "common" titles, but it is important to note that only 4 can be added from further titles common to the Big Four - BS, ISA, LISA, RZI, viz:-

International Library Review
Library Journal
Library Trends
Libri

Other significant points in Table 17 are that 836 titles (87%) were covered by no more than two services; and the figure of 692 titles (72%) covered only by one service is about the same % as that found by Dansey in his investigation of the 1971 coverage of the Big Four.

Overlap Between Pairs of Services

The overlap of titles between pairs of services is of interest because similarities and differences between the services' treatment of the field are likely to be thrown into focus. Table 18 is rather disappointing in that few sharply-drawn conclusions can be made. It does, however, show that LISA and LL have the largest number of common titles, and the probable reason is that only they claim to cover library science. There are two explanations for the fact that the overlap is not higher: (1) LISA does not attempt to cover the many US state library association journals; and (2) LL is rather poor in its treatment of foreign language journals.

It is also not surprising that BS and RZI share first place with the largest number of common titles. Both are produced within organisations publishing a range of secondary services and there is no doubt that such a structure can lead to a monitoring procedure for the coverage of relevant material appearing in "fringe" titles.

Other points of interest in Table 18 are the strong showing of RZI which demonstrates the wide net of the Russian service and the lack of overlap between ISA and the other services, particularly with LL and LISA. The likely reason for this is that ISA does not place so much emphasis on the coverage of periodical literature as the others.

Unique Duplication between Pairs of Services

Another way of looking at affinities and differences between the services is to isolate the number of titles covered by two services and no other. Once again of course the figures prove to be low and cannot lead to any sweeping conclusions, but it is of interest to find that the links between LISA and LL and between BS and RZI hold firm in the first two places.

Table 18: Overlap of Periodical Titles

between Pairs of Services

	CCA	ISA	LISA	LL	RZI
BS	66	55	58	40	89
CCA	-	52	54	26	75
ISA	-	-	50	43	63
LISA	-	-	-	89	85
LL	-	-	-	-	55

Highest Overlap	BS RZI	89 titles
	LISA LL	89 titles
Least Overlap	CCA LL	26 titles

Periodical Titles Confined to Two Services

	No. of Titles
LISA-LL	30
BS-RZI	24
CCA-RZI	18
BS-CCA	16
ISA-RZI	11
ISA-LL	10
LISA-RZI	8
BS-ISA	7
CCA-ISA	7
BS-LL	4
LL-RZI	4
CCA-LISA	3
ISA-LISA	2
CCA-LL	1

Some interesting juxtapositions appear in this breakdown. For example, only LL and RZI covered California Librarian in their 1973 issues; coverage of Biblioteksbladet, Bogens Verden, and Buch und Bibliothek as well as South African Libraries was confined to LISA and LL; for articles in some important management journals and German periodicals like ADL Nachrichten and Bürotechnik Automation + Organisation it was necessary to consult CCA or RZI; two important archive journals, American Archivist and Archives are scanned only by ISA and LL; abstracts for articles in Computers and the Humanities appear only in BS and ISA.

Overlap in Treatment of the Journals

It has been suggested that the overlap of the services in our field might be greater than would appear to be the case from an examination of the coverage of periodical titles because of the effect of high productivity journals.(1) The assumption is that such journals would be covered equally by all the services leading to duplicate coverage of the primary material available.

In Table 19 the 13 titles common to all six services are listed together with the number of citations made for these titles in the 1973 issues of the secondary services. The titles marked with an asterisk form part of the high productivity core - see Chapter 7, Table 11.

To some extent, interpretation of Table 19 is bound to be subjective. The figures are affected by time lags in the services leading to the coverage of different issues and checks should be made with the primary material in order to ascertain the exact coverage. However, to the present investigator, there are sufficiently wide differences in about half of the titles listed to indicate that

there are variations in the approaches of the services. Examples are: CCA and RZI do not abstract Bulletin of the Medical Library Association to the same extent as the other services; Information is, surprisingly, covered more extensively by LISA and even LL than the other services; treatment in depth is given to the Journal of the American Society for Information Science by BS and ISA; and the coverage of Nauchno-Tekhnicheskaya Informatsiya by LISA and LL is relatively poor.

Certain tentative conclusions can be made from the data gathered for this part of the survey. (The word "tentative" has been used because more extensive checks are necessary in order to confirm these findings.) The conclusions are shown under each service's name and the comments may provide a stimulus for the further work necessary.

Table 19: Treatment of the Journals Common to All Six Services in 1973

	Number of Citations in the 1973 Issues of the Services					
	BS	CCA	ISA	LISA	LL	RZI
*Aslib Proceedings	46	38	10	43	47	36
*Bulletin of the Medical Library Association	25	7	61	25	42	17
*College & Research Libraries	26	3	42	26	80	22
Information (Parts 1 and 2)	2	6	11	19	12	2
*Information Storage & Retrieval	41	40	34	35	46	39
Journal of Documentation	18	16	17	14	60	21
Journal of Librarianship	17	10	12	21	10	12
*Journal of the American Society for Information Science	81	66	88	52	50	45
Library Quarterly	9	2	10	12	64	2
*Library Resources & Technical Services	41	22	38	33	58	44
*Nauchno-Tekhnicheskaya Informatsiya Series 1 and 2	207	167	199	64	50	209
*Special Libraries	57	32	78	59	82	46
*Unesco Bulletin for Libraries	35	13	27	33	57	27

*High productivity journals - see Chapter 7, Table 11.

BS. For the 13 titles listed this service provides probably the best allround coverage. The only obvious weakness is for Information.

CCA. This service covers the information science-oriented titles listed in Table 19 well, but there are gaps in its coverage of the more tradtional library science journals.

ISA. The strength of the American service's approach to these titles is that for several of the issues actually abstracted a blanket approach has been adopted. ISA includes abstracts for reviews, letters and brief communications as well as for the longer articles and this is demonstrated by the figures shown for Journal of the American Society for Information Science and Special Libraries. The problem with this service is that its approach is uneven. In 1973, only four issues of Aslib Proceedings were covered. The 61 abstracts culled from Bulletin of the Medical Library Association included the issue dated July 69 and the Apr 71-Oct 72 issues, whilst the other services covered issues between July 72 and July 73.

LISA. With one exception, all the titles receive reasonable coverage. LISA falls down rather badly in its coverage of Nauchno-Takhnicheskaya Informatsiya in comparison with the other abstracting services, but redeems itselft on Information where the others might have been expected to perform better. LISA differs from services like ISA, LL and RZI in that only articles of over a page are considered for inclusion - book reviews and letters are other omissions. This partly explains the lower coverage in this service of the Journal of the American Society for Information Science.

LL. As an indexing service, LL covers short news items, book reviews and letters as well as major articles and this is reflected in its approach to College & Research Libraries, Journal of Documentation and Library Quarterly. In common with LISA, a weakness is the coverage of Nauchno-Tekhnicheskaya Informatsiya - LL only covers Series 1 of the Russian Journal.

RZI. This service matches the Western publications in its coverage of the information science titles, but there are some omissions from the library-oriented journals. For example, only 2 items were abstracted for Library Quarterly during 1973 and the 17 abstracts made for Bulletin of the Medical Library Association were gathered from the same issues for which BS prepared 25 abstracts.

It would appear that even for these common journals the services adopt different approaches and users cannot be certain that required items will always be covered by any single service.

Lists of Overlap Titles

The appendix to this report which lists all the periodical titles discovered during the course of the survey is divided, for fur ther interest, into the areas of overlap. Further analyses of these lists are possible and the following suggestions are offered to interested persons: (1) particular subject strengths of the services, e.g., in the data processing field; (2) language competence of the services,e.g., BS and RZI appear, at first sight, to be rather better than the other services in their coverage of German language material; (3) closer investigation of the titles unique to one service.

Reference

1. Dansey, P. A bibliometric survey of primary and secondary information science literature. Aslib Proceedings, 25 (7) July 1973, p. 258.

CHAPTER 9

COVERAGE BY THE SERVICES OF A REPRESENTATIVE BIBLIOGRAPHY

The technique of testing secondary services by comparing their coverage of the items in a bibliography was devised by Martyn and Slater.(1) It was decided to use the method in the present study in order to obtain a reasonably neutral idea of the services' coverage without playing to any obvious strengths such as LISA's coverage of library science journals, ISA's approach to American reports and RZI's entries for machine translation.

There are problems with the technique. It is difficult to find representative, up-to-date bibliographies; non-English language services are penalised for it is almost obligatory in our field to use a bibliography in English because of the dominating position that this language holds; and there is the possibility of a circular situation arising with the services themselves or, even worse, one service, being used as the basis for compiling the bibliography.

In our field there is the added difficulty of trying to obtain a bibliography which is acceptable to both wings - library science and information science.

Dansey's 1973 investigation employed bibliographies published in the Annual Review of Information Science and Technology. The results obtained were rather encouraging with two out of three bibliographies covered very well by the services. There seems little point in duplicating Dansey's work and so efforts were made to use a bibliography from another source for the present survey.

It was decided that the following annotated list fulfilled the criteria of subject acceptability, currency, and reasonably wide coverage of various categories of primary material:-

> Publications in Cataloguing and Classification: 1973- an annotated bibliography, by Lois Mai Chan & Susan U. Golden. Library Resources & Technical Services, 18 (2) Spring 1974, pp. 117-130.

Inevitably, there are biases, e.g., towards English-language American material and towards library journals.

In a personal communication, Lois Chan has indicated the method used to compile the bibliography,

> "I systematically (i.e. from cover to cover in every issue) went through the current issues of major library journals (e.g. American Libraries, Journal of Librarianship...) and of all journals relating to cataloguing and classification (e.g. Library Resources and Technical Services, Catalogue & Index...). I included in the bibliography every article in the area of cataloguing and classification. In addition I checked through current issues of BNB, NUC, CBI, and BPR for monographs on the subject. The "Books to Come" section in Library Journal also helped. [illegible], I used Library Literature and CALL to supplement my own list."

There is also, therefore, a slight bias towards Library Literature.

Contents of the Bibliography

The bibliography contains 179 entries divided into the following sections:-

		Number of Entries
I.	General and Miscellaneous	19
II.	Cooperative and Centralized Processing	33
III.	Catalogs and Catalog Production	21
IV.	Cataloguing	48
V.	Subject Analysis	21
VI.	Classification	37
		179

163 entries are for material published in 1973; the remaining 16 were published in 1972.

The list includes citations to 57 periodical titles and 127 entries refer to periodical articles. There are 52 entries referring to monographs.

The following breakdown shows the periodical titles covered by the bibliography together with the number of times of citation:-

List of Periodicals

	No. of Citations
Arkansas Libraries	1
ARLIS/NA Newsletter	1
Aslib Proceedings	2
Australian Library Journal	1
Bibliothekar	1
Bibliotheksdienst	1
Biblos (Austria)	1
Brio	1
Bulletin des Bibliothèques de France	1
Bulletin of the Medical Library Association	1
California Librarian	1
Canadian Library Journal	2
Cape Librarian	1
Catalogue & Index	5
College & Research Libraries	4

FID/CR Newsletter	1
FID/CR Report	1
Herald of Library Science	2
Illinois Libraries	2
Indian Librarian	1
Information Storage & Retrieval	4
International Cataloguing	5
International Journal of Law Libraries	1
International Library Review	3
Journal of Documentation	1
Journal of Librarianship	2
Journal of Library Automation	4
Journal of Micrographics	1
Journal of the American Society for Information Science	3
LARC Newsletter	1
LARC Reports	3
LASIE	1
Law Library Journal	1
Library Association Record	1
Library Journal	5
Library of Congress Information Bulletin	1
Library Resources & Technical Services	17
LLA Bulletin	1
Nachrichten für Dokumentation	2
Ohio Library Association Bulletin	1
Ontario Library Review	2
Open	1
PLA Bulletin	2
Program	1
RQ	4
School Library Journal	1
Serif	1
SLA News	1
South African Libraries	2
Southeastern Librarian	2
Special Libraries	3

Unabashed Librarian	6
Unesco Bulletin for Libraries	3
Western Association of Map Libraries Information Bulletin	4
Wilson Library Bulletin	2
Zeitschrift für Bibliothekswesen und Bibliographie	1
Zentralblatt für Bibliothekswesen	2

Language Breakdown

The monographs covered by the bibliography are mainly in the English language:-

English language	49
Non-English language	3
Total	52

The periodical titles also display a strong English language bias:-

English	48
German	6
Dutch	1
French	1
Polyglot	1
Total	57

Periodicals - Countries of Origin

	No. of Titles
USA	26
UK	7
Federal Republic of Germany	3
Australia	2
Canada	2
Democratic Republic of Germany	2
India	2
South Africa	2

Austria	1
France	1
Netherlands	1
International	8
Total	57

There are obvious biases here against BS and RZI, with no Russian representation and only a single French title.

Performances of the Services

The method used for checking the services' performance was to look up each item in the author indexes of the services. In appropriate cases, the other indexes provided were also checked, e.g., CCA's "small indexes" and ISA's anonymous titles indexes. The issues checked included those for 1972, 1973 and all the available issues for 1974 (the check took place in October 1974).

Table 20 shows the coverage of the bibliography by each service divided into the various sections of the bibliography.by each service

The percentages for the coverage of the complete bibliography by each service are as follows:-

BS	31%
CCA	23%
ISA	42%
LISA	56%
LL	72%
RZI	30%
ALL	86%

Commentary on the Results

The figures for the abstracting services in covering this bibliography are considerably worse than those found by Dansey for the ARIST bibliographies. The present investigator would guess from day-to-day work in this field that the situation shown here is probably a more true picture of the state of bibliographical control in library and information science. One suspects that ARIST bibliographies represent a kind of "top-layer" of the literature - of course, it is good to see that our abstracting services cover this material well but it is likely that there is a middle ground where control is much slacker. Certainly, the low figures achieved by the abstracting services for the Chan/Golden bibliography investigated with only LISA obtaining over 50% (and that figure well under 60%) are an indication of shortcomings.

Table 20: The Services' Coverage of the Bibliography by Categories

Category	No. of Entries	Covered by:- BS	CCA	ISA	LISA	LL	RZI
I	19	3	3	6	10	17	6
II	33	7	8	13	16	20	11
III	21	10	7	14	13	15	7
IV	48	15	7	20	28	39	9
V	21	6	6	9	8	12	4
VI	37	15	10	14	25	26	17
Totals	179	56	41	76	100	129	54

The following figures show the number of services covering each item in the bibliography:-

Coverage by:-	No. of items	Percentage of Total items
ALL 6 services	14	8%
5 services	20	11%
4 services	22	12%
3 services	24	13%
2 services	38	21%
1 service	36	21%
None	25	14%
Total	179	100%

The services giving unique coverage to an item consist of the following:-

Service	Total No. of Unique Items	Breakdown by Type of Item Covered		
		Periodical Articles	Monographs	Chapters in Composite Books
LL	27	12	11	4
LISA	5	4	1	-
ISA	3	-	3	-
BS	1	1	-	-

It is worthwhile recording that the item covered only by BS was an article from the periodical Zeitschrift für Bibliothekswesen und Bibliographie.

Coverage by Pairs of Services

One of the themes of this survey has been to try to isolate the similarities and differences between the services and the coverage of this bibliography presents another opportunity to demonstrate the affinities that lie between LISA and LL.

Such a likeness does not seem to exist between any other pair of services in any consistent manner.

The following items in the bibliography are covered by LISA and LL and by no other service.

Periodical articles	
Catalogue & Index	4
Herald of Library Science	1
International Cataloguing	2
International Library Review	1
South African Libraries	1
Western Association of Map Librarians Information Bulletin	4
Books	4
Total	17 items

The full breakdown for the number of items covered by two services only is:-

Pairs of Services	Number of Items Covered by only the Two Services
LISA-LL	17
ISA-LL	11
BS-LISA	2
LL-RZI	2
BS-ISA	1
BS-LL	1
CCA-LISA	1
CCA-LL	1
ISA-RZI	1
LISA-RZI	1

References

1. Martyn, J. and Slater, M. Tests on abstracts journals. Journal of Documentation, 20 (4) December 1964, p. 212-235.

CHAPTER 10

ALPHABETICAL SUBJECT INDEXING AND RETRIEVAL PERFORMANCE OF THE SERVICES

When the Work Plan for this survey was being compiled it was thought that a retrieval test concerning the subject indexing performances of the services would be a useful adjunct to the main investigation. Initial thinking was that the test would be on a very small scale with rather more attention paid to subjective impressions of users than is commonly the case in retrieval testing.

Subsequent discussion with Michale Keen and Jeremy Digger who had just completed the Information Science Index Languages Test (ISILT) revealed a common interest in testing the performance of printed indexes used in actual publications as opposed to testing under "laboratory" style conditions.

A proposal was, therefore, made to Unesco that a separate retrieval test be carried out and a contract was placed with Mr. Keen for this work in November,1974.

In order to retain some links between the two investigations, Mr. Keen has kindly supplied the following information about his test.

TESTING THE SUBJECT APPROACH IN PRINTED INDEXES

by Michael Keen

The studies known as the Cranfield Projects, and other similar experiments, have shown the importance of index evaluation by testing, rather than by relying solely on the opinions of index users. But much of this work has been conducted in controlled laboratory conditions rather than operating environments, and also has left untouched the printed index as characterised by its production constraints and page layout. The services studied in this report exhibit marked differences in the way they cater for the subject approach, such as the use of fairly broad subject headings, or the more specific approach of faceted classification or keywords in context, for example. A deeper analysis of the different subject index entry types is quite feasible, identifying the different kinds of sub-arrangement the entries provide, the use of particular term orders and structure words that influence the intelligibility of the index entries, and so on. These factors, and many more, are responsible for the performance effectiveness of the indexes, and evaluation testing badly needs doing in this area. It is highly likely that some index types are significantly more effective than others, and it is important for index designers, producers and users that more objective studies of this question be undertaken.

One detailed study is now under way at the College of Librarianship Wales, Aberystwyth, known as EPSILON, the Evaluation of Printed Subject Indexes by Laboratory Investigation. The study aims to explore the features of index entries that influence user search strategy and the intelligibility of the entries. The first series of tests are in controlled laboratory conditions using indexes covering library and information science. Firm results are not expected before 1976, but this laboratory work needs to be complemented by operational studies, so that indexes as they are (rather than as they might be) can be compared for effectiveness.

The services considered in this report need rigorous testing to determine their relative effectiveness in satisfying the subject approach. Ideally, an experiment needs mounting using three methods:-

i Controlled search testing simulating different needs;
ii Real user case studies involving observation;
iii User preference studies, e.g., by interviews

The more subjective methods, ii and iii would be tied into the more objective ones, and correlated findings sought. For example the user interviews should use a kind of Delphi technique in which the more objective results are progressively revealed to the users so that their preferences may be re-framed in the light of a better range of more accurate information. The resources needed for such an experiment would have to be quite substantial, so what is now described is a scheme for pilot testing the controlled search testing part of the experiment. This would give valuable results in its own right, and would pave the way to further work.

The assumption for the proposed test is that the services are used, at least by some people some of the time, to discover documents relevant to a fairly well defined information need. This may be of the retrospective search kind, involving an information requirement that occurs on a single occasion. There may also be the episodic needs associated with current awareness: where these are of a fairly precise kind that are satisfied by searching the subject indexes rather than scanning the whole index issue, they may be regarded as similar to retrospective except for their normal repetition, and may be said to be covered by the type of enquiry to be used for the test. Thus the pilot test will be based on relatively specific enquiries which will be put to all the services to determine comparative performance effectiveness.

In measuring performance effectiveness the two criteria under study will be:

(1) the ability of the index to recover the needed citations
(2) the effort required of the searcher in attempting (1)

Appropriate measures of these criteria are, for example, the Recall Ratio (proportion of relevant items actually recovered) and elapsed search time. The latter measures the duration of the search, rather than the intensity of the effort involved, but for practical reasons it is a good choice.

The indexes under test will be the 1973 (and sometimes 1972) issues of each service, together with many cumulated index available. Issues of Bulletin Signalétique changed their index type in 1973, so older issues will not figure in the test. At the time of writing neither the 1973 index to Information Science Abstracts nor the single volume 1973 cumulation to Library Literature had appeared. The former would delay the test and while the latter would not deny the search any retrieval capability the search time would be increased by the need to consult several issues. The problem of differing physical formats and cumulations will, in any case, be studied by means of adjustments according to standard times that will reveal the influence of that factor on performance.

Search requests and relevance judgements will be obtained using the "source document" method because it has been shown to give accurate comparative results, and it is simple and cheap to implement. The first step will be to identify particular documents that have been included in all five services. This will be done by taking the last issues in 1973 of the service that has the greatest currency time-lag, and working backwards to earlier issues tracing documents in all five. Documents that appear in the 1972 volumes of any index except Bulletin Signalétique will be accepted.

Then search questions will be devised, based on these single source documents, and using either the full text of the document concerned or an abstract. If the English Abstracts provided by three of the services are used, they will be utilised in an equal number over the question set, and chosen by random means. Questions will be vetted to ensure no unnatural correspondence between question and source document. Attempts will be made to cover the range of subjects in each service, probably making identifiable subsets covering librarianship and then information science. It is expected that some 60 to 70 such questions will be needed.

For the testing, searches will be made for thse known relevant documents, and timed to their termination point. The searcher will know when the relevant document has been found, but by means that will not in any way aid the search itself. A time limit will probably be imposed so that unsuccessful searches are not irrationally extended. Since these searches simulate only the enquirer wanting a single relevant item, it is hoped to conduct some test in which searches continue longer and sets of documents recovered by the searcher will be judged for relevance.

Library science students will be the searchers, and will represent enquirers familiar in general terms with the subject field. Pre-test work will familiarise the searchers with each index, and previous experience in using the services will be determined. No elaborate search records will be needed, and searchers will be able freely to develop their search strategy in a natural way as they proceed. The biassing effect of memory will be dealt with by a latin square experimental design in which five searchers (or multiples of five) conduct searches on all indexes but never the same question twice. Analyses of variance of the results should be possible, and statistical significance tests will be applied to the comparative measures.

As well as an extensive analysis of the test results it may be possible to look at those searches which are unsuccessful and do a failure analysis to determine the reasons why. A report of the experiment would be produced, and the findings also reported at an International Study Institute on the Design and Evaluation of Printed Subject Indexes to be held in July 1975 at Aberystwyth.

CHAPTER 11

TIME DELAYS FOR THE APPEARANCE OF CITATIONS TO PERIODICAL ARTICLES IN 1973

(The following analysis was carried out by Paul Dansey. An important point is that except for ISA all the services show greater delay times for the appearance of citations than previous investigations. However, ISA's delay times for the titles studied were still greater than those of the other services. The results for LISA and LL are confirmed by an interesting study using a computer program - the Statistical Package for the Social Sciences - to manipulate data.(1) This study divided the primary material into six geographical regions. For all areas, including North America, LISA provided a faster service than LL).

Currency of the Services

by

Paul Dansey

An important measure of the effectiveness of an information dissemination medium is the time taken to transmit the message. In the case of abstracting and indexing services this can be evaluated as the time elapsing between publication of the primary article and the publication of its citation. This delay time can be assessed fairly objectively by comparing acquisition dates by libraries of the primary and secondary publications. In the case of the services studied the acquisition dates were obtained from two London Libraries - British Library Science Reference Library and the British Library (Library Association) Library.

Table 21: Statistical Summary of Journals Selected for Investigation of Time Delays

Common to Dansey and the Present Survey

Aslib Proceedings
Information Scientist
Information Storage & Retrieval
Journal of Chemical Documentation
Nauchno-Tekhnicheskaya Informatsiya

Total 5

Common to Gilchrist and the Present Survey

Aktualne Problemy Informacji i Dokumentacji
Journal of the American Society for Information Science
Nachrichten für Dokumentation
Unesco Bulletin for Libraries

Total 4

Common to Dansey, Gilchrist and the Present Survey

Journal of Documentation

Total 1

Present Survey Only

Documentaliste
Special Libraries

Total 2

By Language	
English	7
French	1
German	1
Polish	1
Russian	1
Polyglot	1
Total	12

By Country of Origin	
UK	3
USA	3
France	1
Poland	1
W. Germany	1
USSR	1
International	2
Total	12

A sample was taken of library and information science journals which was representative in items of productivity, language of publication and country of origin (see Table 21). The sample also contained journals which had been examined in previous studies by Gilchrist and Dansey.[2,3]

All citation published in the 1973 issues of the services and originating from the sample journals were examined. The delay times were calculated by comparing the acquisition date of the primary journal article with the acquisition date of the service containing the citation of the article in question. The mean, maximum and minimum delay times (in calendar days) are displayed in Table 22.

It can be seen that CCA and LISA had the best currency and ISA and LL the largest delay times. BS and RZI were intermediate in currency. The order of decreasing currency is the same as that found by Gilchrist and by Dansey, but LISA and CCA have deteriorated in currency whilst ISA has improved.

A comparison of the three studies shows the following:-

Delay Times in the Three Studies - In Days

	1969	1971	1973
BS	-	124	182
CCA	-	86	97
ISA	427	382	282
LISA	99	99	144
LL	-	-	282
RZI	165	194	223

There are various factors which affect the delay times. Some such as processing time and acquisition of page proofs and advanced copies of articles are under the control of the secondary services. Others such as mail distribution of journals (surface or air) depend on the policy of the primary publishers or their distributors and the relative locations of the primary and secondary publishers. Location in the same country should aid more rapid acquisition of journals. These latter factors also affect the acquisition of the primary and secondary publications by the London libraries, leading to some biases in the calculation of delay times.

In some cases the primary or secondary journals were obviously long overdue as several issues of a journal had the same acquisition date. The sample was, hopefully, wide enough to compensate for these biases. LL only covered 7 of the 13 primary journals in the sample and RZI did not cover Information Scientist in 1973. In some cases one issue of a primary journal was covered in more than one issue of a secondary service so that articles published together originally had abstracts or entries with different delay times.

The mean delays for the services varied between three and nine months and there was a convergence towards an average of six months.

References

1. Turtle, M. R. & Robinson, W. C. The relationship between time lag and place of publication in Library and Information Science Abstracts and Library Literature. RQ, 14 (1) Fall 1974, pp. 28-31.

2. Gilchrist, A. & Presanis, A. Library Information Science Abstracts: the first two years. Aslib Proceedings, 23 (5) May 1971, pp. 251-256.

3. Dansey, P. A bibliometric survey of primary and secondary information science literature. Aslib Proceedings, 25 (7) July 1973, pp. 252-265.

Table 22: Delay Times of The Services for Journal Material

	No. of Abstracts						Mean Delay (days)						Max Delay (days)						Min Delay (days)					
Name of Journal	BS	CCA	ISA	LISA	LL	RZI	BS	CCA	ISA	LISA	LL	RZI	BS	CCA	ISA	LISA	LL	RZI	BS	CCA	ISA	LISA	LL	RZI
Akt. Probl. Inf. Dokum	31	39	9	16	-	38	153	151	428	203	-	252	256	194	509	279	-	304	126	91	369	113	-	214
Aslib Proceedings	46	38	10	43	51	32	174	104	411	94	287	263	241	173	480	163	475	376	123	64	230	34	185	184
Documentaliste	9	5	2	4	-	6	142	112	636	47	-	380	145	190	733	68	-	512	139	42	539	40	-	248
Information Scientist	14	6	18	10	-	-	189	48	410	89	-	-	307	68	540	118	-	-	127	17	321	63	-	-
Inform. Stor. and Retr.	40	40	34	35	50	39	203	74	342	97	281	226	403	127	408	118	481	333	133	49	287	69	202	191
J. of Chem. Doc.	45	65	54	30	-	41	173	151	226	120	-	240	205	274	308	134	-	254	130	58	179	103	-	217
J. of Documentation	18	16	17	14	64	21	165	72	347	90	293	230	207	82	449	155	442	275	126	57	261	57	188	185
JASIS	81	66	84	52	53	45	230	111	260	134	298	253	405	245	475	176	517	320	139	56	160	98	202	202
Nach. Für Dokum.	33	24	14	30	-	60	151	75	318	103	-	241	209	150	352	170	-	294	74	-10	294	59	-	168
Nauk. tekh. Inf. Ser. I	109	82	104	39	8	111	189	70	296	315	587	182	289	87	376	390	587	319	123	50	204	251	587	147
" " " " II	99	85	54	25	-	98	189	76	310	323	-	197	275	103	433	386	-	197	140	44	224	266	-	165
Spec. Libr.	51	29	70	59	69	41	160	79	150	101	180	195	215	137	385	231	397	264	74	-43	19	-6	52	84
Unesco Bull. For Lib.	36	13	26	33	58	27	134	114	337	92	331	287	173	133	395	121	475	386	99	88	311	56	287	224
All Journals	612	508	496	390	353	559	182	97	282	144	282	223	405	274	733	390	587	512	74	-43	19	-6	52	84

CHAPTER 12

COVERAGE OF NON-JOURNAL MATERIAL BY THE SERVICES

In his survey of the 1971 issues of the five abstracting services, Dansey comments on the citation patterns in our field:-

> "There is a remarkable number of references to non-periodical literature such as reports and books. This indicates that information science is nearer in character to the social sciences and the humanities than to the natural sciences."(1)

Unfortunately, there are indications that bibliographical control of our non-journal material is somewhat slack. The Librarian of the British Library (Library Association) Library has given an account of his difficulties in obtaining information about this literature.(2) He remarks:-

> "The monograph situation is frankly terrible."

He outlines the extensive checking procedures used in the library in order to acquire books but states that "every week requests still filter through for titles we have never heard of" and "the report problem is a bad one and is fast getting worse."

Taylor was, of course, mainly concerned in this section of his paper with bibliographical control as a selection aid. However, in the absence of control by the general bibliographical tools perhaps it is necessary to judge the performance of the abstracting and indexing services against the standards expected of current bibliographies. For example, wide coverage on an international scale, speed of entry and bibliographic descriptions made in accordance with library standards of cataloguing.

Amount of Material Covered

Table 25 demonstrates that the largest services in terms of the coverage of non-journal material are ISA and LL. ISA has increased its number of entries for this category since Dansey's investigation of the 1971 issues:-

1973	1971
2184	1470

The invaluable and unique contribution that ISA makes to the bibliographical control of our field is its wide coverage of US report material - the AD, ED and PB series.

The totla figure for LL is probably an inflated one, for the reasons mentioned in the commentary to Figure 3, Chapter 4. Even so, it is unlikely that LL's figure for 1973 fell much below 2,000 entries.

A substantial amount of non-journal material, then, is covered by the two American services. BS and RZI also cover respectable amounts with both containing large numbers of abstracts for non-English language books, collective works, papers in conference proceedings and reports.

Table 23: Coverage of Non-Journal Material in 1975

(The figures in parentheses indicate percentages of the total non-journal material cited by each service)

	Total	English Language Books, Pamphlets Reports	English Language Items in Collective Books, Conference Proceedings, Etc.	Non-English Language Material	Patents	Standards	Miscellaneous (Magnetic tapes, Microfilms, etc.)
BS	1121	139 (13%)	428 (38%)	French -211 (19%) Other -126 (11%)	71 (6%)	146 (13%)	-
CCA	269	36 (13%)	171 (64%)	53 (20%)	9 (3%)	-	-
ISA	2184	1601 (73%)	472 (22%)	86 (4%)	1 (-)	14 (1%)	10 (-)
LISA	361	54 (15%)	230 (64%)	77 (21%)	-	-	-
LL	2488*	786 (32%)	1606*(65%)	96 (3%)	-	-	-
RZI	1258	313 (25%) (separate figures not calculated)		Russian-529 (42%) Other -233 (18%)	171 (14%)	12 (1%)	-

*Note. These two figures for LL are probably too high - see discussion in Chapter 4 after Figure 3.

In 1973, CCA and LISA made very few abstracts for non-journal literature - their efforts were mainly directed towards collective works and conference proceedings. (LISA increased its coverage of books during 1974).

There are two areas of concern in the services' approach to the non-journal literature. Firstly, there appears to be very little overlap, particularly for the non-English language material, so that the user must consult all the services for a comprehensive view. Secondly, some of the primary material covered sits rather strangely in services devoted to library and information science.(1) One wonders whether the user really expects to find entries for the following: books on fanfare bindings in 16th century France and early Korean typography; and reports on the working of the brain and tactile information presentation by inducing high pressure air pulses into a pilot's anti-G suit. (These are examples of entries in LL and ISA).

Time Delays

Broad estimates of time lags for the entry of non-journal material are shown in Table 24 for three of the services - ISA(2), LISA and LL. A proportion of the entries for 1972 literature in all three services is for material published late in the year, so the delays are not at all bad. However, faster performances would be necessary if the services were to be valuable as selection aids.

In this connection, it is interesting that LISA's entries for a small amount of material in 1973 appeared very quickly indeed. During 1974, efforts have been made by this service to increase its coverage of non-journal literature, particularly books and conference proceedings. One's feeling from the day-to-day work is that the time delays have increased with the growth of entries - a fundamental problem of secondary services is to balance the flow of material against the number of staff available for processing.

Estimate of the Amount of Non-Journal Primary Literature

During the initial stages of this investigation it was decided to make detailed notes on the monographs and collective books covered by the services in order to match them at the end of the survey. In this way, it was hoped that estimates of overlap and the total amount of primary material covered by the services during a single year would be possible.

Disappointingly, in spite of the large amounts of data collected, detailed comparison proved impossible. Difficulties included the necessity of checking several years of the services to ensure that older material abstracted by one service in 1973 had not already been covered by the other services in earlier years; and the different practices of bibliographic entry leading to problems of identification - particularly acute for conference proceedings. In short, greater resources would have been necessary than were available for this investigation. From the limited amount of checking that was possible the level of overlap did not seem large.

However, sufficient information was collected to enable a broad estimate to be

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1. This view is not shared by some editors of abstracting services.

2. ISA has the best coverage of recent non-journal material.

Table 24: Time Delays for Non-Journal Material in ISA, LISA and LL - 1973

Dates of Publication of Primary Material

	Total	1973	1972	1971	1970	1969	Pre-1969	No Date
ISA	2184	358 (17%)	1295 (59%)	301 (14%)	133 (6%)	45 (2%)	50 (2%)	2 (-)
LL	958	191 (20%)	439 (46%)	153 (16%)	131 (14%)	29 (3%)	13 (1%)	2 (-)
LISA	561	119 (33%)	226 (63%)	16 (4%)	-	-	-	-

Note. The figures for LL have been taken from the service's Checklist of Monographs cited for the first time and are, therefore, based on complete works not separate entries.

made. A crucial factor in making such a calculation is to ensure that the sub-set of the primary literature coverd by the services represents a year's output only. The study of time delays discussed above shows that there is enough clustering of material for 1972/early 1973 to deduce that ISA and LISA at least covered material available during a single year. The impression given by BS, CCA and RZI is that their currency is very good and it is unlikely that much older material was entered in these services during 1973. LL is not so current but Table 24 does show that 66% of its entries were dated 1972 or 1973.

In the following calculations, therefore, the assumption is that the services covered what was available during 1973 for reasonably current entries to be made.

An effort has also been made to concentrate on what each service does best and to take only its figure for that category, thus minimising the chances of counting material twice.

Calculations

Using CCA and LISA as the basis because the data collected made it fairly easy to eliminate overlapping material in these services, the following figures are obtained: English-language books, etc. 72; English-language entries for collective works, conference proceedings 344; Non-English language material 122. Thus, 538 is the basic figure, derived from the performances of CCA and LISA.

For LL, a count was made of the English-language books and reports entered in the service's 'Checklists of monographs cited for the first time'. Personal judgements were made on what material to include in the count - the older literature was eliminated and also information science titles known to have been covered by ISA.

For the other services, figures for the following categories were extracted from Table 25:-

BS - French language material and standards
ISA - English language books, pamphlets and reports
RZI - Russian language material and patents

Table 25 shows the results of these calculations.

The area of doubt concerns the amount of overlap between the ISA and LL entries. This is probably counter-balanced by the exclusion of BS's non-English, non-French language material and RZI's non-English, non-Russian language material.

Total Yearly Amount of Primary Literature

The addition of this figure to the notional estimate for journal materials (discussed in the Appendix given at the end of this report) produces the following results:-

Periodical articles	6844
Non-journal material	3713
Total	10557 items per year

Given the present structure of our secondary services, this 10,000-plus figure would appear to be a formidable one.

Table 25: Estimate of the Yearly Amount

of Non-Journal Primary Material

	No. of Items
CCA + LISA	538
BS - French language material	211
Standards	146
ISA - English language books, pamphlets and reports	1601
LL - English language books, pamphlets and reports (eliminating older material and information science oriented titles)	517
RZI - Russian language material	529
Patents	171
Total	3713 item in 1973

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1. Dansey, P. A bibliometric survey of primary and secondary information science literature. Aslib Proceedings, 25 (7) July 1973, p. 253.

2. Taylor, L. J. Library science literature: some problems of information about information. Aslib Proceedings, 23 (9) September 1971, pp. 475-476.

CHAPTER 13

ABSTRACTS - ORIGIN

by
Norma Jackson

This chapter deals with the origin of abstracts published in three services - ISA, LISA and RZI. BS was not included as it does not indicate the origin of its abstracts - it is assumed that they are all produced in-house.

The following table shows a simple breakdown:-

Origin of abstracts

	ISA	LISA	RZI
Prepared by in-house staff	554 (15 %)	2260 (78.6%)	3323 (73.4%)
Author etc. abstracts	1129 (30.3%)	600 (20.8%)	908 (20 %)
Secondary sources	1513 (40.6%)	-	-
No abstract	525 (14.1%)	13 (0.6%)	293 (6.6%)
Total	3721	2873	4524

Immediately noticeable is the large number of ISA abstracts obtained from secondary sources such as the Educational Resources Information Center (ERIC), Government Reports Announcements and Referativnyi Zhurnal itself. This number makes up 40.6% of ISA's total output whereas neither LISA nor RZI use, or indeed are able to use, secondary sources for the material they cover. The high proportion of in-house abstracting by LISA (78% of total) and RZI (73%) is due to the fact that most of the articles they include do not carry original abstracts. With ISA's in-house contribution amounting to 15% of its total, it is obvious that much material would be lost if LISA and RZI cut down on their in-house activity.

ISA's author abstract figure (30%) is also higher than that of the other two (20% in both cases). This figure, however, takes into account ISA's inclusion of news and press releases. The "no abstract" count in ISA and RZI, while not high, nevertheless shows their belief that including an item, even without further information, is preferable to leaving it out altogether. The low showing of LISA in this category (0.6%) shows that this view is not shared.

CHAPTER 14

PAGE LAYOUTS AND BIBLIOGRAPHIC DESCRIPTION IN THE SERVICES

The typographical layouts of the six services reproduced on the following pages demonstrate widely diverging views on the most suitable arrangements for meeting users' needs. It is likely that these different methods are reflected in the users' views concerning layout, size of type, order of elements in a bibliographic entry, etc. The only certainty is that the whole question of the presentation of information on the printed page is a highly subjective one.

It would appear that the page settings are affected by the different philosophies of subject arrangement. It would seem also that the breaking-up of a page with bold headings by several of the services allows the carrying out of browsing searches as well as the current awareness approach.

Important factors that cannot be reproduced in this report are the quality and colour of the paper used by the publications. The present investigation led to the extended use of the services over long periods of time. In this investigator's opinion, the whiteness of ISA's paper makes it less tiring to use at this intensity than, say, RZI, which has rather a grey colour. (Many other factors, of course, would influence feelings of fatigue).

One hesitates to say too much about this area because the whole matter is highly contentious. However, it may be of some interest to recount the results of a small user survey carried out by LISA in 1970 into the most suitable method of presentation. Several different layouts of a typical LISA page were circulated to some 20 users. The same quality of paper was used for each sample and all the pages were set in Times Roman. Differences were confined to the use of varying founts for headings, bold caps or italic for sub-headings, various orders for bibliographic elements, etc. The results proved inconclusive - in fact, it would be true to say that we ended up more confused than when we started. Almost as many opinions were received as there were replies.

Two of the comments made are, perhaps, worth repeating here. Several respondents mentioned that they did not like entries to be too close together - some space was necessary between abstracts. There were also indications that a too free mixture of bold/italic/roman founts led to some unease. Perhaps this last point is attributable to library school courses - certainly a glance at any newspaper does not show that the general public shares this view.

Bibliographic Descriptions

In his book, Abstracts and Abstracting Services, Robert Collison comments on the bibliographic descriptions used in the services.

> "The style in which the information concerning the authors and titles of works abstracted are presented has astonishing variations in current abstract journals."(1)

He goes on to say that this variety is easily exceeded by the number of variations in providing bibliographical references and that "here again is an incipient headache for the computer and its programmers in the future."

pour l'enseignement. Présentation du livre « Nonbook materials » de J. Riddle Weihs. On annonce enfin la publication de « Nonbook Materials Cataloguing Rules » par la British Library Association et une proposition émanant d'un groupe de catalogueurs canadiens pour la mise au point d'un ISBD (International Standard Bibliographic Description) pour les documents audiovisuels.

34 - 101 - 3203. *SCHREIBER (H.)* (Inst. polymerforschung, akad. Wiss. DDR) **Beziehungen zwischen Indexieren und Recherchieren.** (Relations entre indexation et recherche).

Informatik, Dtsch. (1973) 20, no 3, 30-32, bibl 12 ref.)

Approche mathématique du problème.

34 - 101 - 3204. *MINEUR (D. W.)* (Coll. libr., Wales) **Relations in chains.**

J. Librarianship, p. G.B., (1973) 5, no 3, 175-202, bibl (3 p.)

Les critiques faites contre l'indexation en chaîne sont passées en revue, et on examine la méthode PRECIS en tant que substitut général d'indexation. On suggère l'utilisation de symboles pour représenter les relations entre les termes dans les index en chaîne, afin de noter les relations syntagmatiques et prévenir les ambiguïtés.

34 - 101 - 3205. **La description bibliographique internationale normalisée.** (International Standard Bibliographic Description).

Bull. Bibl. Fr., Fr., (1973) 18, no 5, 163-252.

Texte des recommandations finales du Groupe de travail qui a élaboré l'ISBD. Ces recommandations fixent les règles de description bibliographique des monographies. L'ISBD se fixe trois objectifs : permettre l'échange de notices provenant de sources différentes, faciliter leur interprétation malgré les obstacles linguistiques, faciliter l'entrée des notices en machine. L'ISBD fournit les données nécessaires à toutes les opérations bibliographiques (catalogage, acquisition, échange, distribution et gestion des livres). Pour des desseins particuliers on peut n'utiliser qu'une partie des éléments de l'ISBD.

34 - 101 - 3206. *RUBLEV (YU. V.) POSTROV (G. N.)* En russe. (Méthode complexe d'indexation automatique de documents).

Nauch.-tekh. Inform., 2, SSSR, (1973), no 4, 8-14, rés. angl., bibl (11 ref.).

Fondé sur la méthode de corrélation d'amas, un algorithme est proposé. Il construit une représentation indexée sous forme d'un ensemble de représentations indexées des différents blocs d'information des textes. Le programme d'indexation est réalisé sur ordinateur de type « MINSK 22 ». Les résultats sont proches des représentations indexées faites par des spécialistes.

‡ 34 - 101 - 3207. *NACKE (O.)* (Inst. dok. inf. sozialmed., 48 Bielefeld) **Dokumentationstechnik für kleinere bis mittlere Literatursammlungen.** (Technique de documentation pour des fonds de petite et moyenne importance).

Arb.-Med. Soz. Med. Praventivmed., Dtsch., (1973), 8, no 7, 155-158.

Les principes généraux des méthodes de classement et de stockage des données relatives aux ouvrages et au contenu des publications du fonds, en vue de la recherche documentaire, sont exposés : organisation de fichiers titres (titres d'ouvrages, titres d'articles de publications); organisation du fichier matière par vedettes matière (avec fiches imprimées ou avec cartes perforées). Les principes généraux des systèmes de classification (CDU entre autres) sont rapidement décrits, ainsi que ceux de l'organisation des thésaurus.

Codification.

‡ 34 - 101 - 3208. *KAYSER (K.) HOPKER (W. W.)* (Inst. pathol. univ. Heidelberg) **Formal considerations on text analysis in anatomic pathology.**

Method. Inform. Med., Dtsch., (1973), 12, no 3, 143-146, rés. allem., bibl. (35 ref.).

Les différentes méthodes utilisées pour le codage de textes médicaux (rapport d'autopsie ou conclusions concernant un malade) en vue d'analyses statistiques sont de trois types : manuelles, semi-automatiques et automatiques. L'aide d'un thésaurus de diagnostics médicaux est indispensable.

34 - 101 - 3209. *PLAISTER (J.)* (London & southeast libr. reg., U.K.) **International Standard Book Numbers : applications.**

Internation. Cataloguing, G.B., (1973), 2, no 2, 4-5.

Deux utilisations de l'ISBN sont décrites : celle qui est faite par le système LASER (London and South Eastern Library Region) pour le prêt et celle du National Union Catalogue of Monographs (Centre du Sud-Etats-Unis) sur la base de l'ISDN.

Condensation.

34 - 101 - 3210. *KOBAYASHI (T.)* En japonais. (Analyse d'articles).

Dokumenat. Kenkyu, Jap., (1973), 23, no 4, 125-130, bibl. (8 ref.).

Comment signaler un article sur une fiche : titre, affiliation, lieu de la recherche, extrait, introduction, expérience, résultats et discussion, avis, références.

34 - 101 - 3211. *SAMSONOV (G. A.)* En russe. (Quelques particularités de l'organisation sémantique de textes techniques (contribution au problème de compression de texte).

Nauch.-tekh. Inform., 2, SSSR, (1973), no 4, 18-23, rés. angl., bibl. (8 ref.).

La construction d'un système de la distribution de l'information à l'intérieur d'un texte technique est considérée comme un système de transformations sémantiques. Ce système est fondé sur des relations sémantiques de deux types : relations d'inclusion, formant la structure sémantique du texte, et relations de but.

34 - 101 - 3212. *MIZOGUCHI (O.)* (Centre inform. Inst. Cancer) **En japonais.** (Façons de résumer).

Dokument. Kenkyu, Jap., (1973), 23, no 5, 157-163, bibl. (6 ref.).

L'auteur expose ses meilleures expériences sur la manière de résumer un article, en particulier dans le domaine médical.

Autres types d'analyse.

‡ 34 - 101 - 3213. *AUDET (H.)* (Nat. bur. stand., Washington, D.C.) **A users' guide to the OMNITAB command « statistical analysis ».**

Nation. Bur. Stand. tech. Note, U.S.A., (1973), no 756, 1-39, bibl. (10 ref.).

Note technique destinée à donner aux utilisateurs une information suffisante pour la compréhension des statistiques calculées et l'application à leurs besoins.

Stockage, recherche et diffusion de l'information.

Aspects généraux.

34 - 101 - 3214. **Baker & Taylor price of BATAB for book processing.**

Adv. Technol./Librar., U.S.A., (1973), 2, no 5, 5-7.

L'ensemble de programmes pour le traitement des livres appelé BATAB et vendu par la société Baker and Taylor est passé de 8 000 à 4 000 dollars. Les raisons de ce phénomène sont exposées.

34 - 101 - 3215. *ADRIEN (F.)* (Dir. dév. sci. IBM, Fr.) **Contribution à la formalisation de la recherche documentaire dans une optique de déduction automatique.**

Automatisme, Fr., (1973), 18, no 6-7, 221-232, rés. angl., bibl. (6 ref.).

Le présent rapport traite de l'utilisation de la logique des propositions en sciences humaines. Le thème est développé autour de la constitution et de l'exploitation de thésaurus, l'application à des domaines variés (tels que l'analyse syntaxique et la psychanalyse) est suggérée. Il indique comment le calcul des propositions permet de dépasser la représentation de réseaux de concepts (ou de règles de dérivation) sous formes de graphes (comme dans les modèles de banques de données relationnelles). Il donne un algorithme de déduction et qui évite des retours en arrière. Il aborde les problèmes de redondance et de contradiction interne. Il indique comment la création automatique de termes génériques peut être obtenue à partir de certaines configurations d'ensembles de propositions; comment, plus précisément, à l'économie sémantique qu'apporte la généricité correspond une économie d'encombrement des propositions.

34 - 101 - 3216. *KUZNETSOV (O. A.) BURKIN (YU. V.)* En russe. (Sur la formation des processus de recherche de l'information).

Nauch.-tekh. Inform., 2, SSSR, (1973), no 4, 25-27, rés. angl., bibl. (5 ref.).

Les processus de recherche de l'information sont formalisés en termes de constructions géométriques dans un certain espace métrique. Les principaux paramètres sont représentés par des vecteurs et les principales valeurs sont données par des distances. Une métrique est définie et choisie individuellement pour chaque utilisateur. La recherche de l'information est représentée comme un processus de minimisation des distances.

Stockage. Gestion du stock documentaire.

Structure des fichiers. Supports.

34 - 101 - 3217. *MENDELOVICI (M.)* En roumain. (Organisation de la mémoire dans les systèmes documentaires).

Stud. cerc. Document., Roman., (1973), 15, no 2, 169-191, rés. angl. russe fr., bibl. (1 p.).

Une analyse de la structure des enregistrements dans chaque fichier est effectuée. L'emplacement physique de ces enregistrements dans les divers fichiers est étudié. Les principes d'organisation de la mémoire pour divers types de systèmes (manuels, semi-mécaniques, mécanisés et automatisés) sont présentés.

Bull med Library Ass, U.S.A. (1973), 61, no 2, 179-200, bibl. (14 réf.)

Une liste à jour de 410 ouvrages et 138 revues est donnée. Elle constitue une sélection de documents de base pour une bibliothèque médicale de faible importance. Les documents sont présentés par sujets, la liste des ouvrages est suivie d'un index des auteurs, celle des revues d'une liste alphabétique par titres. Les couts des abonnements sont donnés.

34 - 101 - **2739.** *PILCHARD (E. I.)* (Coop. state res. serv., U.S.D.A., Washington, D.C.) **On index of equine research 1972.**

Washington, U.S.D.A., (1973), [122 p.].

Projets de recherche sur la physiologie, la pathologie, etc. des chevaux.

34 - 101 - **2740.** *POLUSHKIN (V. A.)* **En russe.** (Cooperation internationale en terminologie de la théorie et de la pratique de l'information)

Nauch.-tekh. Inform., 2, S.S.S.R., (1973), no 5, 37-38.

Compte rendu de la réunion qui s'est tenue à Budapest du 26 au 27 Février 1973. Les thèmes discutés sont rapportés. Les organismes participants sont cités.

34 - 101 - **2741. User needs and information supply. Report on the Scottish branch conference.**

Inform. Scientist, G.B., (1973), 7, no 1, 20-22.

Compte rendu du congrès qui s'est tenu à l'université de Stirling le 10 novembre 1972.

34 - 101 - **2742. The British Library's services. Report on the November joint conference.**

Inform. Scientist, G.B., (1973), 7, no 1, 14-19.

Compte rendu du congrès réuni le 16 novembre, avec la participation de l'ASLIB, de l'Institute of Information Scientists, de la Library Association et de la Society of Archivists. Des représentants du British Library's Planning Secretariat et de BLOC (British Library Organizing Committee) étaient invités. La discussion portait sur les services attendus de la British Library.

34 - 101 - **2743. NCLIS states new studies on microforms, interlibrary loans.**

Adv. Technol./Librar., U.S.A., (1973), 2, no 5, 4.

On donne en bref les nouvelles études publiées sous microformes par le NCLIS (National Committee on Library and Information Science).

34 - 101 - **2744.** *BURK (C. F. JR)* (Can. cent. geosci. data, dep. energy, mines resour., Can.) **Computer-based storage and retrieval of geoscience information : bibliography 1970-72.**

Geol. Surv. Canada, Paper, Canada, (1973), 73, no 14, [42 p.], bibl. 115 p. 1/2).

Troisième édition de la bibliographie élaborée par COGEODATA.

• 34 - 101 - **2745.** *CLASON (W. E.)* (Geldrop, Neth.) **Elsevier's dictionary of library science, information and documentation in six languages : English-American-French-Spanish-Italian-Dutch and German.**

Amsterdam, Elsevier, (1973), I-597, ISBN — 044441018X.

Le dictionnaire proprement dit est suivi d'un index alphabétique des mots dans chacune des langues (français, espagnol, italien, hollandais et allemand).

34 - 101 - **2746. L'année internationale du livre.**

ABF, Bull. Inform., Fr., (1973), no 79, 61-89 (23 p.).

Bilans et comptes rendus des réalisations des sections et groupes régionaux à l'occasion de l'Année internationale du Livre (1972).

34 - 101 - **2747.** *HAGEDORN (R.)* (Zentralstelle primärdok.) **Einleitliche Primärdokumente von Rechnungsführung und Statistik sowie der Fertigungsorganisation sind fertiggestellt.** (La préparation de documents primaires normalisés, du domaine de la gestion comptable et de la statistique ainsi que du domaine de l'organisation de la production, est achevée).

Rechentech. Datenverarbeit., Beih., Dtsch., (1973), 10, no 7, 40-41.

Pour l'application rationnelle des techniques automatiques de traitement des données, des modèles normalisés de documents primaires internes aux entreprises ont été mis au point. La liste est donnée ici des types de documents pour lesquels des modèles normalisés ont été établis et peuvent être obtenus auprès des maisons d'édition. Les documents énumérés sont classés par secteurs du domaine de la gestion comptable et de l'organisation de la production.

• 34 - 101 - **2748.** *CONNOLLY (T. F.) COPENHAVER (E. D.)* (Oak Ridge Natl. lab., Oak Ridge, Tenn.) **Bibliography of magnetic materials and tabulation of magnetic transition temperatures.**

New York, IFI-Plenum, (1972), [166 p.], bibl. x/92 p. 1/2), ISBN — 0306682263 (Solid state phys. litt. guides 5).

34 - 101 - **2749. Le Festival de Nice : résultat des colloques.**

Doc. Fr., Fr., (1973), 162, no 25, 773-809.

Rapports des diverses commissions du colloque Bibliothécaires-Editeurs qui s'est tenu à Nice le 3 mai 1973. Les problèmes étudiés par les commissions furent : ISBN et dépôt légal, le livre pour enfants, le marché des bibliothèques, l'information des bibliothécaires, la présentation matérielle du livre, les problèmes de l'édition scientifique et technique, la microédition et le fac-similé.

34 - 101 - **2750.** *GORISCH (R.)* (Berlin) **Bericht über die 4. Mitgliedervollversammlung der Sektion medizinische Bibliotheken des Bibliotheksverbandes der DDR am 22. und 23. November 1972 in Erfurt.** (Rapport sur la 4ème assemblée plénière de la section « bibliothèques médicales » de l'association des bibliothèques de RDA, qui s'est tenue les 22 et 23 novembre 1972 à Erfurt).

Zbl. Bibl.-Wes., Dtsch., (1973), 87, no 5, 281-282.

Plus de 90 institutions membres étaient représentées au congrès. Les principaux problèmes débattus, et en assemblée générale, et dans chacun des quatre groupes de travail constitués, sont soulignés.

• 34 - 101 - **2751.** *PIERROT (R.)* **Le contrôle bibliographique universel.**

In : Fed. int. assoc. bibl. 39eme Sess., Grenoble, 1973, S.l., (s.d.), 56, 1-3.

Les objectifs de la 39ème Session de la FIAB sont présentés, ainsi que les thèmes de communications et leurs auteurs.

• 34 - 101 - **2752. Table ronde sur le contrôle bibliographique universel dans les pays en voie de développement.**

In : Fed. int. assoc. bibl. 39ème Sess., Grenoble, 1973, S.l., (s.d.), 155, 1-4.

Cette table ronde qui s'est tenue dans le cadre de la 39ème Session de la FIAB a réuni les représentants de 25 pays en voie de développement. Les thèmes abordés au cours des travaux sont énumérés. Les résolutions des participants sont données intégralement.

• 34 - 101 - **2753. Centre National de Documentation Scientifique et Technique. Rapport d'activité 1972.**

Bruxelles, Bibl. r. Albert Ier., (s.d.), 1-91.

Inventaire des activités et réalisations du Centre National de Documentation Scientifique et Technique en 1972. Les actions du CNDST se sont développées dans quatre directions : exécution du programme de recherche classique, automatisation à la Bibliothèque royale et au CNDST, recherche d'une politique nationale pour l'information scientifique et technique et participation aux activités d'organismes internationaux.

34 - 101 - **2754. Publications du centre O.R.S.T.O.M. de Nosy-Bé. Liste mise à jour au 31 décembre 1971.**

Centre O.R.S.T.O.M. Nosy-Bé, Docum., Républ. malgache, (1973), no 33, 1-107.

La liste comprend trois séries de publications : les cahiers ORSTOM, série Océanographie, les documents scientifiques du centre ORSTOM de Nosy-Bé, les contributions du centre ORSTOM de Nosy-Bé, composées de tirés-à-part d'articles publiés dans des revues autres que les deux précédentes. Ces publications sont au nombre de 408, pour la période allant de la création du Centre ORSTOM (Office de la Recherche Scientifique et Technique Outre-Mer) au 31 décembre 1971. Chaque document comporte un résumé.

34 - 101 - **2755.** *SCIBOR (E.)* **En polonais.** (La réunion du comité Central de classification FID/CCC à Budapest).

Aktual. Probl. Inform. Dokument., Polska, (1973), 18, no spéc., 37-40, rés. russe fr. angl., bibl. (1 réf.).

Cette réunion s'est tenu du 8 au 9 septembre 1972, pendant la 38ème conférence de la FID. Les pricipaux problèmes discutés concernaient le projet du SRC (Standard Reference Code), le programme de développement de la CDV, les activités des sous-comités et groupes de travail de la FID/CCC, le programme de publication des tables de la CDV.

34 - 101 - **2756.** *LESKI (K.)* **En polonais.** (Réunion ouverte sur la formation en science de l'information).

Aktual. Probl. Inform. Dokument., Polska, (1973), 18, n° spéc., 29-31, rés. russe angl. fr.

Cette réunion a été organisée par deux comités de la FID (Enseignement et formation et aide aux pays en voie de développement). Les rapports les plus importants sont notés, concernant en particulier : la formation du personnel conformément au programme UNISIST, l'assistance aux pays en voie de développement, les programmes d'enseignement en science de l'information et leur adaptation aux différents niveaux et aux différents pays, la formation des enseignants en science de l'information, la formation des bibliothécaires selon le programme UNISIST, etc.

34 - 101 - **2757.** *BRANDALSKA (E.)* **En polonais.** (Séminaire international sur la formation en science de l'information).

Aktual. Probl. Inform. Dokument., Polska, (1973), 18, n° spéc., 23-28, rés. russe angl. fr.

Le programme du séminaire international qui s'est tenu à Veszprem (Hongrie) est présenté.

34 - 101 - **2758.** *PIROG (W.)* **En polonais.** (La 38ème Conférence et le Congrès international de la FID à Budapest).

Aktual. Probl. Inform. Dokument., Polska, (1973), 18, n° spéc., 3-8, rés. russe angl. fr.

Compte rendu de ces deux manifestations. Les débats de l'Assemblée générale sont présentés. Les activités des différents comités sont décrites. On décrit aussi les débats du Congrès international de la FID. Le rôle de la FID dans le développement de l'information scientifique, technique et économique est souligné.

• 34 - 101 - **2759. Fédération internationale des Associations de Bibliothécaires. 39e Session, Grenoble, 1973.**

S.l., (s.d.), [813 p.], 4 h.t., bibl. (dissém.) 77 Fasc.

Les communications du congrès sont analysées séparément.

15561 The Consul 253 organisational calculating machine in the information field. III. V.Thannabauer.
Tech. Knih. (Czechoslovakia), vol.18, no.3, p.65-75 (1974). In Czech.
For pt.II see ibid., vol.18, no.2, 42-7 (1974). Basic operations of the machine from the standpoint of a user are described with the aim to fill the gap between the detailed technical description of the machine and the practical knowledge which can be acquired after several months of its use. To insure the machine protection, the emphasis is laid on differentiation between operations when current supply is switched on or off. (2 refs.) *E.D.*

15562 Prognosis of the development of automated information selective systems. J.Podzimek.
Tech. Knih. (Czechoslovakia), vol.18, no.3, p.76-8 (1974). In Czech.
Historical development of information processes and systems is outlined and various factors influencing the "information explosion" are discussed. It is suggested that the traditional methods of information processing will have to be replaced by coupler automated information selective systems and that such systems will operate on the principle of hierarchical structures, e.g. with three processing levels: standardized systematic information processing; further processing with respect to various scientific fields and industries; and final processing on the basis of specific requirements by individuals or scientific teams. Various types of information services and high flexibility of information network is expected. *E.D.*

15563 Inter-library loans: some problems and possible solutions. M.Nortier (Bibliotheque Nat., Paris, France).
Unesco Bull. Libr. (France), vol.28, no.2, p.67-72, 78 (March-April 1974).
In this article the author reviews the problems raised by inter library loans and makes suggestions as to how they might be solved at three different levels: in individual libraries, at national level and at international level. (no refs.)

15564 Inter-library loans: the experience of the Center for Research Libraries. G.Williams (Center Res. Libraries, Chicago, Ill., USA).
Unesco Bull. Libr. (France), vol.28, no.2, p.73-8 (March-April 1974).
The Center for Research Libraries, Chicago, acquires and maintains collections of little-used documents and publications of interest to libraries and scholars and makes them available on request to any library in the United States of America. The article describes the origins of the centre and points out the advantages of organizing similar national central collections in other countries. (no refs.)

15565 A study of six University-based information systems. B.Marron, E.Fong, D.W.Fife, K.Rankin.
Report NBS-TN-781, Nat. Bur. Stand., Washington, D.C., USA (June 1973), 88 pp.
A methodology for categorically describing computer-based information systems was developed and applied to six university-based, NSF-supported systems. The systems under study all operate as retail information centres primarily serving campus communities by accessing large commercially-available data bases using 3rd generation computer configurations. The systems vary in design philosophy, mode of user service, transferability characteristics, and operational status. A summary matrix is included.

15566 Technology transfer through GIDEP. E.T.Richards (Naval Weapons Station, Corona, Calif., USA).
Proceedings of the 1974 Annual Reliability and Maintainability Conference, Los Angeles, Calif., USA, 29-31 Jan. 1974 (New York, USA, IEEE 1974), p.266-71.
This paper describes a cooperative effort in technology transfer between Government and Industry to reduce costs and enhance systems reliability through the media of the Government-Industry Data Exchange Program (GIDEP). The current expansion of GIDEP into Failure Rate Data Interchange; Defective Parts and Components Control; Secretariat for Electronic Test Equipment and International Reliability Data Exchange is discussed.

Access to information in foreign languages – an experiment ..... See Entry 15572
The legal information system of the Federal Republic of Germany ..... See Entry 15647
Papers and proceedings of professional meetings on microfiche ..... See Entry 15583
On technique of computing the storage space for a reference information collection ..... See Entry 15585
Medical information systems: a look ahead ..... See Entry 15766

8.520 GENERATION, DISSEMINATION AND USE OF INFORMATION

15567 The dissemination of information on scientific-technical achievements by innovators. H.-J.Persicke (Zentrum Wissenschaftlich-tech. Information Binnenhandel, Berlin, Germany).
Informatik (Germany), vol.21, no.1, p.16-18 (1974). In German.
The licensed utilization by other enterprises of innovations exceeding the competence of one firm is not yet satisfactory. The information system on science and technology is to be used to eliminate this shortcoming in the field of home trade. Information on innovations will be disseminated by means of abstracts and documentation. As regards abstracts, patterns have been worked out on the basis of the structural abstract; principles have been laid down for abstracting, organization of information flow as well as the supply of documents. (5 refs.)

Prognosis of the development of automated information selective systems ..... See Entry 15562

8.540 PUBLISHING AND REPRODUCTION

15568 Integrated software for publishing. L.Tatham.
Data Processing (GB), vol.16, no.2, p.91-2, 94 (March-April 1974).
NEWSCOMP, developed by Sperry Univac, is designed to handle the technical and administrative requirements of print production, advertising, circulation and accounting. (no refs.)

15569 Micropublishing: A different perspective. J.P.Kottenstette (Univ. Denver, Colo., USA).
Image Technol. (USA), vol.15, no.5-6, p.26-8 (Aug.-Nov. 1973). [received: May 1974]
The era of micropublishing has been frustrated by the inability of the industry to develop consumer markets for microforms in addition to its traditional institutional markets. Research indicates that microform technology is effective as an information carrier and can be utilized to meet individual information needs. However, the enhancement of this technology in both hardware and software systems tends to meet institutional information needs where manipulation of data dominates the communication of ideas via microform. The perspective that micropublishing should also embrace the communication of ideas at the level of the individual provides wholly new system design criteria and redefines the role of standardization in supporting communication through the microform medium. (no refs.)

15570 Range of application of computer outlet on microfilm. G.D.Vriesman.
Informatie (Netherlands), vol.16, no.2, p.73-7 (Feb. 1974). In Dutch.
This is a logical development of computer technique, and present-day equipment can handle up to 50 characters/s, assisted by improvements in microfilming and projection methods. It forms a new alternative to the line-printer. The film used is either 16 mm or 105 mm and the method is equally suitable for on-line and off-line work. Current retrieval methods enable the correct fiche to be located from 20000 (4 million pages) within 2 s. *N.C.*

15571 Foreign currency exchange problems relating to the book trade. M.Moran (Colorado State Univ., Fort Collins, Colo., USA).
Libr. Resour. & Tech. Serv. (USA), vol.17, no.3, p.299-307 (Summer 1973). [received: April 1974]
Currency problems relating to the purchase of books from foreign countries are examined. The basic problem is to decide which currency will be used in these transactions, and how to reach agreement with vendors on this point. Current practice is uncertain, and recommendations for more accurate practices are made. (11 refs.)

Papers and proceedings of professional meetings on microfiche ..... See Entry 15583
Why paper? A study in publishing with microfilm ..... See Entry 15635

8.550 TRANSLATION

(inc. natural language analysis; for computer-aided translation see 8.870)

15572 Access to information in foreign languages – an experiment. D.N.Wood.
BLL Rev. (GB), vol.2, no.1, p.12-14 (Jan. 1974).
Until March 1973 articles successfully requested were translated in their entirety and returned to the requester for editing, a process which took an average of 2 months and cost (excluding library handling costs) an average of £21 per translation. The cost varied from an average of £13 for Slavonic material to £57 for Japanese. Faced with a rapidly increasing demand for the service and steadily rising translation costs it was decided to examine the cost effectiveness of the programme by testing the hypothesis that much of what would normally be translated was unnecessary to the understanding of the article and contained little important information. (no refs.)

8.560 INFORMATION ANALYSIS AND INDEXING

15573 Analysis of document contents in processing text information. M.Ciganik (Vyskumne Vypostove Stredisko, Bratislava, Czechoslovakia).
Kniznice & Ved. Inf. (Czechoslovakia), vol.5, no.4, p.145-53 (1973). In Slovak. [received: April 1974]
The subject is facet analysis of paper texts in abstract journals. The author deals with semantic foci in papers, with comparative analysis of document contents and with the utilization of quotations from the standpoint of elaborating the analysis of document contents. (7 refs.)

15574 Conventional catalogue call marks. G.G.Getsov.
Nauchno-Tekh. Inf. 1 (USSR), no.3, p.25 (1974).
A cataloguing system is described which facilitates the use of a large file of publications. (no refs.)

15575 UDC and the social sciences. G.J.A.Riesthuis.
Open (Netherlands), vol.6, no.3, p.127-40 (March 1974). In Dutch.
On the basis of a theoretical appraisal the author formulates six requirements that have to be met by any language in documentation of the social sciences. They are: the meaning of the signs used should be unambiguous; the concept ladder and rows should as much as possible consist of paradigmatic relations. In any case they should be syntactic; all paradigmatic relations occurring in the language should be indicated; a sign should have no meaning that could be taken as a syntactically linking relation; the use of several signs and (or) expressions each indicating the same study object should be avoided; and it should be possible to indicate by a sign or an expression all objects within the field. Although the author has found that UDC in many cases does not meet the requirements he still believes it to be viable. He includes some suggestions towards solution of problems in UDC. (27 refs.)

15576 Classification of local publications. T.Heenan (Univ. Nebraska, Omaha, USA).
Spec. Libr. (USA), vol.65, no.2, p.73-6 (Feb. 1974).
A classification scheme for nonfederal, government publications is explained in step-by-step sequence. The described scheme is sufficiently complex to handle any number of publications from an endless variety of nonfederal governmental units. The scheme is adaptable to any size collection of local publications, and to any type of library. A brief discussion of the classification and use of local publications introduces the classification scheme. (no refs.)

A mathematical theory of man-machine text editing ..... See Entry 14704
Experiences derived from the building-up of an international information system on construction engineering ..... See Entry 15551
The dissemination of information on scientific-technical achievements by innovators ..... See Entry 15567
On the further development of automated factographic retrieval systems ..... See Entry 15580
A case study in terminal usage ..... See Entry 15587
Computer processing of radiologic narrative data ..... See Entry 15657

8.580 INFORMATION STORAGE AND RETRIEVAL

15577 Holographic information retrieval system. K.Tsukamoto, A.Ishii, A.Ishida, M.Sumi, N.Uchida (Nippon Telegraph & Telephone Public Corp., Tokyo).
Appl. Opt. (USA), vol.13, no.4, p.869-74 (April 1974). (Meeting on Optical Storage of Digital Data, Aspen, Colo., USA, 19-21 March 1973).
See abstr. C15037 of 1973. (6 refs.)

15578 Informational character of results of the scientific and technical activities. M.Jarecky.
Cesk. Inf. Teor. & Praxe (Czechoslovakia), vol.16, no.2, p.97-101 (1974). In Czech.
The author describes informational aspects of those results of the scientific and technical activities which are subject to moral obsolescence. The time course and the intensity of utilization of scientific results may be graphically

The current library environment is first examined, and an attempt is made to explain why the standard approaches to the library problem have been less productive than had been anticipated. A new design is then introduced for modern library operations based on a two-fold strategy: on the input side, the widest possible utilization is advocated for cooperative and shared operations, whereas dynamic, user-controlled procedures should be used for the subsequent internal processes. The dynamic environment applies in particular to the maintenance of the indexing vocabulary, the organization of the retrieval information files, the performance of search and retrieval operations, and the control of the library collection necessitated by document growth and retirement. Some experimental results are included as illustrations for the proposed dynamic operations.

73—3220 Sievert, Rolland F. **A feasibility study of centralized and regionalized interlibrary loan centers.** Contract OEC-0-72-6688. 1973 April. Association of Research Libraries, Washington. 65 p. 60 ref. EDRS: LI-00 206; HC $3.29; MF $0.65. Sponsored by National Commission on Libraries and Information Science, Washington.

The present interlibrary loan system will need to be better organized and expanded to include centralized regional centers in order to meet the increasing volume of requests. Presently, about 70% of all requests are being successfully filled within regional and local systems. Two major problems of the present system are 1) unequal distribution of lending and 2) difficulty filling incomplete and incorrect requests. These will be growing problems as the request rate doubles during this decade. Present regional systems, and current literature were studied, and persons involved in interlibrary loans were interviewed during this study. Recommended is a network, to be funded by the Federal Government, with regional bibliographic centers, resource centers and back-up centers centrally planned, but with a decentralized service program. Methodology and an outline for a cost study are included. (ERIC/CLIS)

Specialized Information Services and Systems

3.0 General Aspects

73—3221 Allen, F. H., Kennard, Olga, Motherwell, W. D. S., Town, W. G., Watson, D. G. (Crystallographic Data Centre, Cambridge, U.K.). **Cambridge Crystallographic Data Centre. 2. Structural data file.** *Journal of Chemical Documentation* 13(3), 119-123 (1973 August). 1 illus. 2 tab. 5 ref. *See IS* 4 72—4224 *M.*

The Cambridge Crystallographic Data Centre is concerned with the retrieval, evaluation, synthesis, and dissemination of structural data obtained by diffraction methods. This paper deals with the organization and maintenance of a computerized file of numeric crystallographic structural data.

73—3222 Amick, Daniel James (University of Illinois, Chicago). **Scientific elitism and the information system of science.** *Journal of the American Society for Information Science* 24(5), 317-327 (1973 September-October). 3 illus. 9 tab. 20 ref. Work supported in part by NSF Grant GN-738.

Scientific elitism must be viewed as a multidimensional phenomenon. Ten variables of elitism are considered and a principal components factor analysis is used to scale this multivariate domain. Two significant dimensions of elitism were found: one in basic and one in applied science. Sociometric techniques were used to identify the elite of a scientific discipline in a large metropolitan area. An abstract analytical continuum, the scientific mission, was generated using a Thurstone-type scale. The scientific mission is a higher order concept and subsumes both idealized polar types of basic and applied science. A scientist's scale score reflects his professional interests and the breadth of his interest space. There is a distinct tendency for elites to cluster at the basic research end of the continuum. It was found that: 1) the ten variables of elitism provide a scale that successfully discriminates between elites and non-elites; 2) elites process more information than non-elites; 3) elites had more narrowly defined, less diffuse interest spaces than non-elites; and 4) elites prefer literature-oriented methods of processing scientific information as opposed to person-oriented methods.

73—3223 Bail, Marion E., ed. **How to select a computerized hospital information system.** *Data Processing in Medicine*, No. 2, 1973. S. Karger, Basel, Switzerland; and New York. 77 p. illus. Refs. $16.55. Available from Phiebig, White Plains, New York. LC card 73-16067.

73—3224 Carlisle, James H. **Interactive man-machine communication.** Annual report, 1 February 1972-31 January 1973. Report ER-66. Contract N00014-67-A-0077-0010. 1973 March. Department of Administrative Sciences, Yale University, New Haven, Connecticut. 68 p. NTIS: AD-760 010, HC $3.00, MF $0.95. *See IS* 5 73—3017 *M.*

To demonstrate for users with varying psychological characteristics, that alternative modes of man-computer dialogue should be provided for a given task, an experimental design has been formulated. The research on specific hypotheses involves conceptual complexity and environmental complexity. To facilitate the design of alternative modes of man-computer dialogue, a technique of protocol analysis for information system design is adapted from that used in artificial intelligence research. A description of this new technique is included. Two papers outline some of the objectives and methodologies currently in use. (GVRAA)

73—3225 Fortin, R. L. **Problem statement language and analyzer concept and recommendations.** Technical report. MTR-2462 ESD-TR-72-402. Contract F19628-73-C-0001. 1973 March. Mitre Corporation, Bedford, Massachusetts. 23 p. NTIS: AD-758 773, HC $3.00, MF $0.95.

The Information System Design and Optimization System (ISDOS), under development at the University of Michigan, offers automated assistance for the design of information processing systems (IPS). The problem statement language (PSL) and problem statement analyzer (PSA) are the components of ISDOS which are used for IPS requirements definition and analysis. This report describes the ISDOS project in general and the concepts, capabilities, and use of PSL/PSA. The report also describes future PSL/PSA development plans and makes recommendations for a detailed study to determine PSL/PSA's functional value. (GVRAA)

73—3226 Gol'dgamer, M.I. **Funktsii podrazdelenii i sotrundnikov informatsionnykh sluzhb NIP, KB i predpriiatii.** [Functions of units and staff of the information services at D&D and R&D organizations and enterprises.] *Nauchno-Tekhnicheskaya Informatsiya. Series 1.* (6), 7-13 (1973). 0 ref. In Russian.

Specifies the functions of the main units of information services at research and development, and design and development, organizations and industrial enterprises and their staffs.

73—3227 Kanter, Jerome. **Management-oriented management information systems.** 1972. Prentice-Hall, Englewood Cliffs, New Jersey. 270 p. $11.50.

73—3228 Kirson, Benjamin L. **Scientific and technological information systems in the Soviet Union.** *Journal of the American Society for Information Science* 24(4), 306-307 (1973 July-August). 9 ref.

The effective use of scientific and technological information in today's society is of paramount importance and has, therefore, become a subject which is receiving worldwide attention. Not much is known at present about the organization and structure of the Soviet Unions' information systems. However, more and more interest by the U.S. government in the Soviets' activities in this area is evident. It is the purpose of this communication to objectively review and summarize the present state-of-the-art of scientific and technological information systems within the Soviet Union.

73—3229 Koh, Hesung C. (Human Relations Area Files, New Haven, Connecticut). **HABS: a research tool for social science and area studies.** *Behavior Science Notes* 8(2), 169-199 (1973). 31 ref.

This is a revised version of an unpublished 1971 conference paper. The Human Relations Area Files Automated Bibliographic System (HABS) is a machine-based system designed to facilitate the selection, comparison, and evaluation of documents in the social sciences. Technically, it is an adaption of previous work at Yale University on bibliographic processing. However, the data format provides for acceptance and use of a very large number of categories of data to achieve the intended purposes. Both fixed-field (coded) and natural-language input are accepted. Data categories relate to: document description, analysis of document content, annotation and commentary by reviewers, and internal processing control. The data base may be used for searching or for printing various types of indexes or bibliographies. Appendixes to this paper show: data categories in use; codes in use; samples of input data; and sample output listings. (M.E.)

73—3230 Kuschnerick, Boris W. (Johns Hopkins University Applied Physics Laboratory, Silver Spring, Maryland). **Letter to the editor.** *Journal of the American Society for Information Science* 24(4), 309 (1973 July-August). 1 ref.

John L. Bennett, in "The user interface in interactive systems," *Annual Review of Information Science and Technology*, Volume 7, 1972, p. 159 (IS 4 72—3253), expressed caution on Stickland's study of on-line self-tutoring. Bennett states that it is easy to have both subject and experimenter be the same person. Kuschnerick states that it is useful to have experimenters try out their own experiments in order to further refine the experi-

73—3286 Farquhar, John A. **Education and library services for community information utilities.** Report P-4897. 1972 September. Rand Corporation, Santa Monica, California. 28 p. NTIS: AD-759 941; HC $3.00, MF $0.95.

In order to more fully describe education and library services, a feasible configuration is described. In the home, the utility would manifest itself to the user as a variation of the television set. The crucial difference, of course, is that communication is two-way. The person desiring utility services may be (singly or simultaneously) connected to a source of television programs, a computer, or any of the organizations (such as a library) with which he might wish to transact business. Institutional, social, and psychological effects are discussed. (GVRAA)

73—3287 Farquhar, John A. **Entertainment and news services for community information utilities.** Report P-4898. 1972 September. Rand Corporation, Santa Monica, California. 26 p. NTIS: AD-759 940; HC $3.00, MF $0.95.

Discusses attractive goals for CIU entertainment and news services, and addresses the question of whether the CIU concept is enough — in itself — to realize these goals. In cases where the framework appears insufficient, possible alterations—legislative, economic, and administrative—are discussed. Finally, potential institutional and social implications of the CIU news and entertainment services are identified, followed by a description of the possible shape of these services in the prototype CIU implementation. (GVRAA)

73—3288 Frycki, Stephen J.; Giarrusso, Frederick F.; Roskos, Paul A.; Dancsecz, Dolores E.; Lucania, Salvatore J.; O'Brian, Dennis M. (E. R. Squibb & Sons, Inc., Princeton, New Jersey). **Computerized monitoring of the inventory and distribution of research chemicals.** *Journal of Chemical Documentation* 13(3), 136-145 (1973 August). 9 illus. 3 ref.

Describes a one-time data entry system, coupled with an efficient use of the computer, which provides inventory management, distribution, and audit reporting, the ability to answer special queries, and to produce customized reports. Results achieved by the system have been: paperwork has been drastically reduced, streamlined, or both; clerical labor has been significantly reduced; the preparation of reports to management has been automated; and the Research Chemicals Distribution Center can devote more time and resources to its prime function, the distribution of chemicals for biological testing.

73—3289 Giroux, Emile. **Shipping operations information system. Volume 1.** Executive summary. MA-RD-900-73035. Contract MA-2-36238. 1973 May 1. Computer Sciences Corporation, Falls Church, Virginia. 75 p. NTIS: COM-73-10765; HC $3.00, MF $0.95. *See ISA 73—3290 N.*

Describes an assessment of requirements for a Shipping Operations Information system to be developed jointly by the Maritime Administration and selected U.S. flag ocean carriers. To be developed progressively in breadth and depth of capability, the system consists of four major services —Cargo space documentation, Intermodal distribution coordination, Fleet resource management, and Maritime industry reporting—each responsive to a particular set of maritime community needs. Within each service "modular computer programs" are to carry out individual tasks on call while being stored at a central facility in conjunction with the necessary data files accessible on either a common or proprietary basis. A nationwide communications network allows for local remote terminal access to the system offering common usage to U.S. shipping companies. (GVRAA)

73—3290 Giroux, Emile. **Shipping operations information system. Volume 2.** Report. MA-RD-900-73036. Contract MA-2-36238. 1973 May 1. Computer Sciences Corporation, Falls Church, Virginia. 627 p. NTIS: COM-73-10766; HC $9.00, MF $0.95. *See ISA 73—3289 M.*

Contents: Cargo space documentation; Intermodal distribution coordination; Fleet resources management; Maritime industry reporting; Standards; Comprehensive development plan. (GVRAA)

73—3291 Granito, Charles E. (Institute for Scientific Information, Philadelphia). **CHEMTRAN and the interconversion of chemical substructure systems.** *Journal of Chemical Documentation* 13(3), 72-74 (1973 May). 3 illus. 7 ref. *See ISA 73—3093 Y.*

The need for the interconversion of chemical substructure systems is discussed and CHEMTRAN, a new service, designed especially for creating interconversion programs, is introduced.

73—3292 Heller, Stephen R.; Feldmann, Richard J.; Fales, Henry M.; Milne, G.W.A. (National Institutes of Health, Bethesda, Maryland). **A conversational mass spectral search system. I. The evolution of a system for the retrieval of mass spectral information.** *Journal of Chemical Documentation* 13(3), 130-133 (1973 August). 4 illus. 17 ref.

A prototype of an interactive, conversational mass spectral search system, developed at the National Institutes of Health, has been tested since September 1971 and is now being used by more than 200 scientists in the U.S. and Canada. The response has led to management of the system being given to the Mass Spectrometry Data Centre, Aldermaston, U.K., for use by the international mass spectrometry community.

73—3293 Kehl, W.B., *et al.* **Center for Information Services, final report, Phase IIB.** Detailed design and prototype development, 1 January 1971 to 30 June 1972. 1972. Campus Computing Network, Library and Institute of Library Research, University of California, Los Angeles. 80 p. 0 ref. EDRS: ED-073 795; HC $3.29, MF $0.65. Sponsored by Office of Science Information Services, National Science Foundation, Washington.

This report covers Phase IIB (1 January 1971 to 30 June 1972) of the development of a campus-based Center for Information Services (CIS) at the University of California at Los Angeles (UCLA). Activities during this phase included completion of the design and programming details of the software system, development of a prototype of the software system, acquisition of selected data bases, development of operational procedures, operation of experimental current awareness search services with interim software, seminars for library personnel, and the establishment of procedures for the transfer of the operation to the library. Two highlights of the phase were the outstanding success of the experimental current awareness service and the establishment of a CIS unit in the library. (ERIC/CLIS)

73—3294 Kiewitt, Eva L. **PROBE computer search of the ERIC tape.** 1973 May. School of Education, Indiana University, Bloomington. 7 p. 1 ref. EDRS: ED-075 050; HC $3.29, MF $0.65.

PROBE, a search and retrieval program, was developed in 1970 at Indiana University to search the computer tape base for the two ERIC publications *Research in Education* (RIE) and *Current Index to Journals in Education* (CUE). The ERIC tapes were received, converted, and combined at the University and implemented on the Wrubel Computing Center CDC 6600. This brief paper reviews the early experimental stages of the program and documents the project growth in staff and number of searches conducted in response to user requests. (ERIC/CLIS)

73—3295 Landau, Herbert B.; Maddock, Jerome T.; Forst, Stanley J.; McGechan, Thomas J.; Phalen, Thomas P. **Comprehensive designs for improved paperwork and information systems associated with the review of investigational new drug applications (IND's) and new drug applications (NDA's).** Final report. AUER-2008-400-TR-1. Contract FDA-72-63. 1973 April 15. Auerbach Associates, Inc., Philadelphia, Pennsylvania. 488 p. NTIS: PB-220 324, 8; HC $10.60, MF $0.95.

Presents revised and new methods for submission and handling Notices of Claimed Investigational Exemption for a New Drug (INDs) and New Drug Applications (NDS's). Proposals include changes in media, organization formatting and packaging of IND and NDA submissions. Problems associated with document acquisition, processing, storage, retrieval, and issuance of outgoing correspondence were studied, and staff responsibilities were defined and a new approach to document storage recommended. Two automated data systems are proposed. The Submission Index and Information System (SIIS) is an automated document retrieval system. It provides a broad knowledge base for the reviewer to test conclusions presented in submissions under review. Management Information System (MIS) is an automated system intended to provide reports on the progress of all documents under review, the utilization of resources, and historical information. Operational procedures for both automated systems are described. A systematic implementation plan and personnel requirements are presented. Estimated costs and benefits are given. (GVRAA)

73—3296 Lawson, Rodger S. **Perspectives on the development of a comprehensive labor market information system for Michigan.** *Methods for Manpower Analysis. No. 8.* 1973 April. W.E. Upjohn Institute for Employment Research, 200 South Westnedge Avenue, Kalamazoo, Michigan 49007. 79 p. 106 ref. $1.75. EDRS: ED-076 224; HC $3.29, MF $0.65. Sponsored by Vocational Education and Career Development Service, Michigan State Department of Education, Lansing; Michigan State Office of Manpower Planning, Lansing.

Recommends a course of action for the State of Michigan to follow in developing a comprehensive labor market information system as a basis for planning educational curricula and for delivering other manpower or human resource development services. The author gives a broad conceptual definition of a comprehensive manpower information system; defines Michigan's need for such a system; and considers some ways in which unmet needs could be resolved. Essential data elements are described in terms of the needs of the system's users: individuals seeking work, state and local

non-book items. Reference libraries and reading rooms must be extended because at present they only offer 30% of the places required. Also discussed are new methods and techniques in library and information services and a suitable organisational scheme which would provide college and university libraries with better guidance and assistance. (J. V.)

Gd—UNIVERSITY LIBRARIES

GdD1—UK 73/2684

University libraries. Norman Roberts. Libr. Ass. Rec., 75 (11) Nov 73, 219-221. 9 refs.

The 9th article in a series (see also 70/1780, 71/79, 71/1348, 71/2269, 72/723, 72/1668, 73/680 and 73/1679). Based mainly on annual reports. Discusses the relationship of a university with its library and the current problems of costs with reference to Surrey University; forms of improved service at Bradford and Reading Universities; and automated systems at Reading, Birmingham and Bradford Universities. (N. J.)

GdD493—Belgium 73/2685

Universiteitsbibliotheken in het brandpunt. [University libraries in the focus of attention.] J. Bogaert. Bibliotheekgids, 49 (3) 1973, 58-74. 1 table. 34 refs.

Discusses the role of the university library under the following headings: Situation in Belgian university libraries; Aim, task and function of the modern university library; Policy. (Abstract supplied by author)

GdD941—Western Australia. University of Western Australia 73/2686

Library development at the University of Western Australia. Barbara Hale. Aust. Libr. J., 22 (7) Aug 73, 247-251. 1 illus. 1 table. 3 refs.

Surveys the development of library service in WA University. Comments on the effects of isolation from the rest of Australia; the difficulties in recruiting qualified staff until the establishment of a library school in WA; coordination of the university's library resources; automation; and the future. (Original abstract—amended).

GdEbkAzJib—Research users. Influence of 73/2687
in-library use of materials. (Non-circulation)

The non-circulating academic research library: a paradigm for change. Richard L. Press. Libr. J., 98 (17) 1 Oct 73, 2821-2823. 2 illus.

Defines an academic research library as a library of record which has removed its other responsibilities such as providing recreational reading or being a textbook exchange to another location. Puts forward a case for returning to the earlier practice of non-circulation of materials to ensure the most just and efficient use of these libraries. (N. J.)

GdEr(61)D6781—Medical libraries. Makerere (Uganda). Albert Cook Library 73/2688

Introducing Uganda libraries: Albert Cook Library (the Makerere Medical School Library). V. Nadanasabapathy. Ugandan Libraries, 1 (1) Sept 72, 17-20.

This is a sub-library of the Makerere University Library and serves the medical school of the university. Facilities are also extended to all medical personnel in Kampala and a postal membership is served. Notes are given on staff (18 members); stock (collection of 45,000 with 1,000 periodical titles); services; classification (Barnard scheme); and catalogues. The library offers MEDLARS* searches (undertaken by the US National Library of Medicine), compiles short bibliographies from its own resources and publishes the comprehensive East African Medical Bibliography. (N. J.)

Gf—TECHNOLOGICAL UNIVERSITY LIBRARIES

GfD438—Poland 73/2689

O potrzebie reformy bibliotek uczelni technicznych. [On the need for reforms and trends in technical university libraries.] Czeslaw Daniłowicz. Akt. Probl. Inf. Dokum., 10 (1) 1973, 9-16. 1 illus. 1 table.

There is a need for fundamental reforms if technical university libraries are to fulfil their aims. The problem is discussed using the Wroclaw University Library as an example. Information provision and research are particularly important. There is an urgent need to reform the system of training library management and the promotion system for librarians. (Original abstract—amended. Aslib)

Gfc—COLLEGE LIBRARIES

GfctD6761—Technical college libraries. Uganda Technical College 73/2690

Introducing Ugandan libraries: Uganda Technical College Library. H. M. Kibirige. Ugandan Libraries, 1 (2) Mar 73, 16-17.

A brief description of the library's accommodation, staff, stock and services. (T. E.)

Gj/b—VOCATIONAL SCHOOL LIBRARIES

GbD361—Teacher college libraries. Stranmillis College, Belfast 73/2691

Stranmillis College Library. F. J. Teskey. An Leabharlann. The Irish Library, 2 (3) Sept 73, 114-115.

The college is part of the Institute of Education of Queen's University, Belfast. It offers a 3-year BEd course, a 1-year post-graduate course and various in-service courses for teachers. The library's stock of 60,000 is divided into 3 sections: the main collection covering major academic subjects; Teaching Practice Library housing a collection of children's books and school textbooks; and a large collection of non-book material. (N. J.)

GbD4384Ad—Teacher college libraries. North Rhine-Westphalia (West Germany). Surveys 73/2692

Materialien zum Bibliothekswesen der Pädagogischen Hochschulen des Landes Nordrhein-Westfalen. [Data on librarianship at educational colleges in North Rhine-Westphalia.] Hans Limburg. Mitteilungsblatt (Verband der Bibliotheken des Landes Nordrhein-Westfalen), 23 (3) Sept 73, 224-239. 11 tables. 5 refs.

Summary of the results of a questionnaire to various colleges with the object of assembling data on library matters. Information in tabular form is presented on the following topics: staff; bookstock; periodical subscriptions; financial resources; space allocation; library usage; cataloguing and classification methods; and inter-library loans in the Ruhr, Rhineland and Westphalia-Lippe districts. (C. P. A.)

Hb/s—SPECIAL LIBRARIES

HbAgD73—Conferences. USA. Special Libraries Association. Annual Conference (1973) 73/2693

SLA 1973: wide angle view of the (secret) future. Art Plotnik. Wilson Libr. Bull., 48 (1) Sept 73, 72-76. 8 illus.

Presents the highlights and a personal view of the 1973 SLA Conference, Pittsburgh. Although this business-like organisation seldom concerns itself with social issues, a resolution was passed supporting a free press. The programme featured a broad range of subjects relevant to special librarianship, but it is felt that the depth to which they were covered was often disappointing. SLA's strength is reflected in the number of delegates attending (2,070 out of 7,815 membership); the increase of membership by 9.2%; 2 new divisions, and a balanced budget. (N. J.)

HbD43—West Germany 73/2694

Zur Situationsverbesserung der Spezialbibliotheken. [On the improvement of the position of special libraries.] Bernhard Zechendorf. DFW, 21 (5/6) Sept 73, 202-203.

Some general points for discussion of the present position of the special library are raised. The professional isolation of the special librarian might be overcome by the establishment of regional offices for the organisation of special libraries. Such offices would concern themselves with library organisation, training of library assistants, publications and documentation. Special attention would have to be paid to the problems of small private firm libraries which would greatly benefit from cooperation. (W. A.)

HbD941—Western Australia 73/2695

Western Australian special libraries. Natalie Sugden & G. J. Carson. Aust. Libr. J., 22 (7) Aug 73, 251-256. 2 illus. 3 refs.

Special libraries in WA have developed at a faster rate in the last decade than at any other time largely as a result of changing technology and availability of qualified staff. Though small, collections are basically adequate. New developments in response to changing conditions are described. Problems facing special libraries mainly result from geographical isolation. (Original abstract)

HfD4977—Learned, society and institute libraries. Bulgarian Academy of Sciences 73/2696

Die Entwicklung der methodischen Arbeit im Bibliotheksnetz der Bulgarischen Akademie der Wissenschaften. [The development of methodological work in the library network of the Bulgarian Academy of Sciences.] Nikolay Aleksandrovic Laskeev. Zentbl. Bibliothw., 87 (9) Sept 73, 530-535. 1 ref.

The central library of the Bulgarian Academy of Sciences acts as the methodological centre for more than 40 libraries belonging to the Academy. Centralised methods are applied to acquisition, cataloguing, bibliography and information work. Control is exercised by means of visits to individual libraries, the analysis of annual reports and plans, a consultancy service, seminars, specially written textbooks and guidelines and the compilation of a central directory of library resources. In addition, close liaison is maintained with academies on other disciplines, notably medicine and agriculture. (C. P. A.)

Ht/Ryh—INSTITUTIONAL LIBRARIES. SERVICES TO THE PHYSICALLY ISOLATED AND HANDICAPPED

HuD794—Hospital libraries. Martin Luther King, Jr. General Hospital, Los Angeles 73/2697

Martin Luther King, Jr. General Hospital and community involvement. M. Moss Humphrey. Bull. Med. Libr. Ass., 61 (3) July 73, 324-327.

The Martin Luther King, Jr. General Hospital and its mainly black community are very closely linked, and the medical staff are orientated towards this outlook. The hospital library, in addition to

COLLEGE and university libraries—*Continued*

Tennessee

See also
Tennessee. State university, Memphis. Libraries

Texas

Parker, E. D. and Dumont, C. M. Sharing academic library resources: south Texas style. Texas Lib J 49:30-6 Mr '73

See also
Corpus Christi. University of. Libraries
Texas. University, Austin. Libraries
Texas tech university. Libraries
Trinity university. Libraries

Utah

See also
Utah. University, Salt Lake City. Libraries

Virginia

See also
Virginia. University, Charlottesville. Libraries

Washington, D.C.

Union list of serials. 2d ed Washington, D.C., Consortium of universities of the Washington metropolitan area '70 unp [distr. by Catholic univ. of Am. press]

Wisconsin

Academic libraries—directory. (In Wisconsin. Department of public instruction. Division for library services. Public, academic and special library service record, 1972. The division '73 p46-50)

Academic libraries, 1971/72 [statistics]. (In Wisconsin. Department of public instruction. Division for library services. Public, academic and special library service record, 1972. The division '73 p42-5)

See also
Wisconsin. University, Parkside. Libraries

COLLEY, Heather
Teachers college waits for Godot. Australian Acad and Res Lib 4:15-30 Mr '73

COLLIER, Robert Gordon
Organization and processing of foreign materials in American libraries. (In Institute on the acquisition of foreign materials, 1971, University of Wisconsin. Acquisition of foreign materials for U.S. libraries. Scarecrow '73 p262-7)

COLLIER'S encyclopedia, with bibliography and index. Crowell-Collier educ. corp. '71. 24v il maps
—Review. Bklist 69:913-14+ Je 1 '73

COLLISON, Robert Lewis Wright
Indexes and indexing; guide to the indexing of books, and collections of books, periodicals, music, recordings, films, and other material, with a reference section and suggestions for further reading. 4th ed Benn; De Graff '72 232p bibliog
—Review by H. Borko. Inf Stor Retr 9:349 Je '73
Story of street literature; forerunner of the popular press. ABC-CLIO; Dent '73 183p bibliog il
—Review. Bklist 69:918 Je 1 '73

COLMAN, Gould P.
Communications from members. Am Archivist 36:483-6 Jl '73
Other side of planning. Cornell Univ Lib Bull no 175:5-6 Mr '72
Risk taking as an economic indicator. Cornell Univ Lib Bull no 181:19-21 Ja '73

COLMORGEN, Liobа
Internationales symposium für kinder- und jugendliteratur 1971 in Frankfurt (International symposium for children's and youth literature, Frankfurt, 1971). Buch und Bibliothek 23:1141-2 N-D '71

COLOGNE. Bibliothekar-lehrinstitut des landes Nordrhein-Westfalen
Reinke, E. M. Systemforschung und -analyse; fortbildungsseminar des BLI Köln 4.-8. 10. 1971 (Systems research and analysis; continuing education seminar of the Library school, Cologne, October 4-8, 1971). Buch und Bibliothek 23:1133-7 N-D '71
Scharschmidt, M. Beruf und ausbildung; umfrage im ersten semester 0H am lehrinstitut in Köln (Profession and education; inquiry in the first semester at the library school in Cologne). Buch und Bibliothek 23:646-6 Jl-Ag '71
—Comment by H. Lüdtke. Buch und Bibliothek 23:946 O '71

COLOGNE. Universitäts- und stadtbibliothek
Kaiß, A. K. Bibliotheksbenutzung durch ausländische studenten; ergebnisse einer qualitativen umfrage in der Wirtschafts- und sozialwissenschaftlichen fakultät der Universität zu Köln (Library use by foreign students; results of a qualitative questionnaire in the economic and social science faculty in the University of Cologne). Verband Bibl Landes Nordrhein-Westfalen Mitt 21:190-7 S '71

COLOMBIA
See subdivision under:
Government publications
Research materials—Special subjects

COLSON, John C.
Agony of outreach: some reconsiderations based on the High John project. Lib J 98: 2817-20 O 1 '73

COLUMBIA university. College of physicians and surgeons. Library
Columbia appoints Jones as medical librarian. Med Lib Assn Bull 61:359 Jl '73

COLUMBIA university. Libraries
Crystal, B. R. If the good Lord and my creditors spare me: the Epstean collection on the history of photography. Il Columbia Lib Columns 22:24-36 My '73

COLUMBIA university. School of library service
Thomas, A. R. New York library schools: a British viewpoint. Int Lib R 5:335-9 Jl '73

COMICS
Shearer, D. H. R. How is your access? Comics as an intellectual resource. Cornell Univ Lib Bull no 176:8-11 Ap '72
West, C. Head comix. biblog Synergy no37: 10-14 Summer '72

COMMISSION on obscenity and pornography. See United States. Commission on obscenity and pornography

COMMONWEALTH library association

About

Bryan, H. COMLA: nostalgia or new look? Australian Lib J 22:117-19 Ap '73
Harrison, K. C. Commonwealth library association. IFLA News no43:21 Mr '73
Harrison, K. C. Commonwealth library association. Int Lib R 5:283-7 Jl '73

COMMUNICATION
Dizard, R. ed. Future of literacy. Prentice-Hall '73 117p bibliog
Ralphs, F. L. Communication: the presidential address at the annual conference of the School library association on 29th December 1972. Sch Libn 21:101-8 Je '73
Vagianos, L. G. Library and information associations in the international arena. (In American society for information science. Conference, 1972, Washington, D.C. Proceedings, v9: A world of information. ASIS, 1140 Connecticut Ave, N.W., Suite 804, Washington, D.C. '73 p79-85)

See also
Mass media

COMMUNICATION of scientific and technical information
Fugmann, R. On the role of subjectivity in establishing, using, operating and evaluating information retrieval systems. Inf Stor Retr 9:353-72 Jl '73
Gonod, P. and Beverly, J. Constraints on the international flow of information in Latin America. (In American society for information science. Conference, 1972, Washington, D.C. Proceedings, v2: A world of information. ASIS, 1140 Connecticut Ave, N.W., Suite 804, Washington, D.C. '73 p219-23)
Robertson, A. Information flow and industrial innovation [with discussion]. biblog Aslib Proc 25:130-9 Ap '73

See also
Information services, Scientific and technical
Selective dissemination of information

COMMUNITY and the library. See Library-community relations

COMMUNITY college libraries

Administration

Sheparovych, Z. B. Management by objectives: a learning resources centre introduces a business system to solve managerial problems. Canad Lib J 30:222-7 My '73

Architecture and building

See Architecture and building—Community college libraries

Statistics

Statistics of Washington state community college libraries for the 1971-72 school year. Lib News Bull 39:404-17 O '72

Alberta

North, J. Towards decentralization: the learning resource centre of Mount Royal college. Il plan Canad Lib J 30:235-42 My '73

New Jersey

Sheparovych, Z. B. Management by objectives: a learning resources centre introduces a business system to solve managerial problems. Canad Lib J 30:222-7 My '73

Mowbray, T. M. «N. Z. Libr.», 1973, *36*, No. 2, 48—54. (In English)

Describes a project of the building of the National Library of New Zealand, location of sections and layout of separate storeys. S. Yu.

ORGANIZATION OF INFORMATION AND LIBRARY ACTIVITIES

Editor D. M. Simanovskaya

GENERAL PROBLEMS OF ORGANIZATION

UDC 002

73.12.332. *Information and documentation: their role in the future.*— Schwarz, Stephan. Information och dokumentation — perspectiv pa framtida roller. «Tidskr. dok.», 1973, *29*, No. 2, 46—47. (In Swedish).

The notion of information activity is presented and its role in present-day information systems in the field of science and technology, production, and management is explained. G. A.

UDC 002.6

73.12.333. *An information system for official statistics. I.*— Brophy, Hugh. Informačný systém pre štátnu štatistiku. I. «Inform. systémy», 1972, *1*, 21—28. (In Slovak; English and Russian summaries).

The planning and control of the resources of a nation demand an information system built around a computer. This paper is an attempt to define the relationship between political theory, government decision-making, economic forecasting and the official information systems. 9 refs. [For Part II see «Informatics», 73.12.334]. Summary, modified

UDC 002.6

73.12.334. *An information system for official statistics. Part II.*— Brophy, Hugh. Informačný systém pre štátnu štatistiku. II. «Inform. systémy», 1972, *3*, 19—30. (In Slovak; English and Russian summaries).

Some tentative proposals for solving the problems involved in creating official information systems are considered together with various aspects of standardization and generalization of programming systems and on-line systems, and development of new organizational structures. 10 refs. [For Part I see «Informatics», 73.12.333]. Summary, modified

UDC 027.7

73.12.335. *Comparative study of academic library activities.*— Gábor, František. Porovnávacie štúdie o práci vysokoškolských knižníc. «Knižn. zb.», 1971, 281—286. (In Slovak).

A collection of papers («University and Research Library Studies». W. L. Saunders, Editor. Oxford, Pergamon Press, 1968) devoted to a comparative study of librarianship is reviewed. The book can be of help in improving library activity both at a national and international level. The academic library development is analysed (primarily in Australia, Britain, USA, and European CMEA countries). In Australia libraries established in the post-war period (since 1946) have been developing actively. This country with its relatively small population is especially interested in a selective acquisition of foreign literature. As for Britain, its library policy changed in the 1920s. In the USA a network of training centres using audiovisual facilities has widened. A systematic nature of data on libraries in Hungary, GDR, Bulgaria, Poland, Rumania, USSR, and Czechoslovakia is noted. V. Salchinsky

UDC 02

73.12.336. *Implementing the new system: conversion, training and scheduling.*— Griffin, Hillis L. «Libr. Trends», 1973, *21*, No. 4, 565—574. (In English).

The paper considers various problems involved in library automation, training and scheduling, including the possibilities of the hardware used in library automation: peripherals, optical readers, terminals and memories of various types, printers, and teletypes. Specific recommendations are given on preparing materials for punching and conversion of manual card files into machine-readable format using library staff assistance. V. K.

INTERNATIONAL ORGANIZATIONS AND ESTABLISHMENTS

UDC 002

73.12.337. *The International Information System for Science and Technology.*— Thierry, Józef. Międzynarodowy system informacji naukowej i technicznej. «Wektory», 1973, No. 7, 6—8. (In Polish).

The CMEA International Information System, which is being developed by the International Centre for Scientific and Technical Information (Moscow), comprises international subsystems covering corresponding specialized subsystems in particular states, and is based on cooperation among national information systems. A modular structure offers a way for a step-wise construction of the system. Presently the Centre is conducting research with the aim of devising a number of international discipline-oriented and special information systems, particularly in the field of chemistry, civil engineering, electrical engineering, etc. The information system for reports on R&D and D&D projects and dissertations written in the CMEA countries, which is operational since the beginning of 1973, is one of them. Information language and hardware compatibility is the most difficult problem for national systems within a world system. The analysis of aims and trends of the Centre's activity has revealed that the international information system whose creation is now under way may be in future incorporated in the UNISIST as its subsystem. By this time steps have been taken both toward establishing a service responsible for registering information agencies and for drafting a project of an international service for registering periodicals published in the CMEA countries, which is to be available since January 1974. Much effort has been spent in the field of information personnel training. A. Yurko

UDC 061.3:002(4:103)

73.12.338. *The conference of representatives of the central information institutions of the academies of sciences of the socialist countries on scientific information in social sciences.*— Cabrunová, Anna. Porada predstaviteľov ústredných informačných pracovísk akadémií vied socialistických krajín, ktoré sa zaoberajú vedeckými informáciami v oblasti spoločenských vied, Berlín, 16.11.—19.11. 1971. «Inform. bull. SAV», 1971, *2*, No. 2, 5—11. (In Slovak).

The paper describes the efforts of the CMEA countries towards promoting information in the field of social sciences, as discussed at the Conference held in Berlin in November 1971. The Conference also debated the GDR Project for Furthering Many-lateral Cooperation among

RZI - Sample page

the information which is subject to processing rather than its quantity, and this is believed to be the reason why no practical integrated computer-based IR system has been developed so far. The organisational framework of the automated IR systems now under development has a significant — as yet unfavourable — effect on their performance. The following major causes of the difficulties are examined: (1) significant discrepancies between information request and objective information needs; (2) inevitable changes in information needs with a growing awareness of new sources of information; (3) the discrepancy in the information needs of active workers in the field, on the one hand, and the content of classification schemes, thesauri and similar tools used in information storage and searching, on the other, since these tools depend on a level of knowledge necessarily lagging behind of their further development; (4) contradictions between the branch-oriented (specialised) organisational patterns of research and industry, on the one hand, and the autonomous, interdisciplinary nature of a considerable portion of the essentially new information, on the other hand; and (5) distinctions between the need for generalised information and the need for individual facts. Various kinds of information are described in relation to their purpose (for management, execution, and optimization) as well as different levels of information presentation. 8 refs.

A. Blek

UDC 002.513.5

73.12.145. *A volume from an international conference on mechanisation of information work.*— Kaňka, Vladimír. Sborník z mezinárodní konference o mechanizaci informační činnosti. «Bibliogr. zb.», 1971, 207—211. (In Czech).

Pragopress publishers in Prague (CSSR) issued a volume, «Information systems», which is composed mainly of the papers presented at the International Conference on Mechanisation of Information Storage, Retrieval and Dissemination (Rome, 1967) which was sponsored by FID and IFIP. The volume consists of three parts. The first part contains full translations of ten of the conference papers which the compilers feel are the most interesting ones. The second part consists of the abstracts of the 30 remaining papers. The third, supplementary, part includes material which describes the ARDIS and INDORES 4 computer-based systems which have been developed in the CSSR.

O. Globachev

UDC 002.513.5

73.12.146. *Relationships between indexing and retrieval.*— Schreiber, Herbert. Beziehungen zwischen Indexieren und Recherchieren. «Informatik», 1973, *20*, No. 3, 30—32. (In German).

A mathematical model for document indexing and subsequent retrieval, is presented which is characterised by a set of attributes some of which are given priority. It is concluded that search performance, which is gauged by the relevance of the documents selected from the information file according to a given match criterion, depends both on indexing accuracy and the number of index numbers assigned to each document. The function expressing this relationship is described.

A. B.

UDC 002.513.5

73.12.147. *Studies to compare retrieval using titles with that using index terms. SDI from «Nuclear Science Abstracts».*— Olive, G.; Herry, J. E.; Datta, S. «J. Doc», 1973, *29*, No. 2, 169—191. (In English).

An experimental study conducted in an SDI service in nuclear physics and technology operating on Nuclear Science Abstracts tapes is described. The aim of the experiment was to compare the efficiency of searching using Euratom Thesaurus descriptors with that using title keywords. The experimental findings are presented. 6 refs.

O. V.

UDC 002.513.5

73.12.148. *The influence of data banks on process organisation.*— Mühlemann, A. Der Einfluß von Datenbanken auf die Prozeßorganisation. «Z. Organis.», 1973, *42*, No. 4, 199—200, 202—206, 208. (In German).

It is noted that led by the desire to develop integrated IR systems some companies began to establish data banks, and that the high cost and labour effort involved in individually developing data bank software has prompted computer manufacturers to offer increasingly ready-made machine languages and program packages. This has resulted in creating technological premises for the implementation of integrated IR systems, which requires a thorough-going examination of the appropriate organisational conditions. The notion of «production process» is explained, its principal levels and aspects are examined in terms of systems theory. It is pointed out that before third-generation computers were introduced, the tasks most frequently handled by computers were those involving a fairly straightforward processing of the bulk of homogeneous data for isolated operations. The trend towards integrated systems design is described; integrated systems are distinguished by one-time input of primary data into their data banks with subsequent multiple-purpose data handling. Common traits characterising data bank system as a major step in MIS design are depicted. The implementation of those systems calls in most cases for a revision of the existing organisation of production processes. Various sub-systems of both management systems and production systems are examined, as well as their interaction, e. g. as a result of centralised information accumulation, on-line processing, man-machine dialogue facility, uniform information processing cycle, etc. Information flows between computing centres, specialised (production) divisions and individual specialists are characterised. 16 refs.

A. Blek

UDC 002.513.5

73.12.149. *Experiments in multilingual information retrieval.*— Salton, G. «Inf. Process. Lett.», 1973, *2*, No. 1, 6—11. (In English).

Earlier experiments comparing the retrieval performance of multi-lingual thesauri showed approximately the same search results with document collections in different natural languages. The files were different, though, so that there was practically no direct comparison between the semantic systems incorporated in the multilingual thesauri. Therefore, a search experiment was conducted on the SMART IR system with the aim of directly comparing the performance parameters of multi-lingual thesauri. The experiment used an identical set of 52 document abstracts in the area of documentation in both French and English, and 16 user queries, also in French and English. Searches were made on the basis of new modified versions of the automatic term weighting algorithm used in the SMART system. The experimental results reinforced the conclusions derived from earlier experiments: document collections available for a given subject area in several natural languages can be processed fully automatically to produce substantially identical retrieval performances. Also, the possibility of developing equivalent (in terms of retrieval) linguistic systems for both languages was corroborated. 4 refs.

V. Morozov

UDC 002.513.5

73.12.150. *The integrated subject file. I. Data base characteristics.*— Zipperer, W. C.; Stearns, R. E., Jr.; Park, M. K. «J. Chem. Doc.», 1973, *13*, No. 2, 92—98. (In English).

Characteristics of Volume 71 of the Integrated Subject File (ISF), the computer-readable data base corresponding to the Chemical Abstracts Subject and Formula Indexes, are reported. Minimum, maximum, and average

"Variety" is also the keyword when looking at the styles of bibliographic description used in the six services in our own field.

The following indication of the differences attempts to summarise the manner in which entries for periodical articles are made. Important points are that the order of the elements in the entries shows variations and two services - BS and RZI - do not note the full date of issue.

Bibliographic Descriptions for Periodicals

BS. Author; Designation of author (place of work); Title of article in original language (but not Cyrillic or Japanese, i.e.; there is no transliterated title); Translated title in French, but not for English language titles; Title of periodical including country of origin; Date (Year only); Volume number; Part number; Pagination; Bibliography.

CCA. Title of article - always given in English, foreign language titles are not given; Author; Designation of author; Title of periodical, including country of origin; Volume number; Part number; Pagination; Date, including month; Indication of language if other than English; References given at the end of the abstract.

ISA. Author; Designation of author; Title of article in original language, including transliteration of Cyrillic; Translated title in English; Indication of language if other than English; Title of periodical; Volume number; Part number; Pagination; Date, including month; Illustrations; References; Number of tables; Indication of support for research work. If known, indication of where and at what price English translation may be obtained.

LISA. Title of article in original language, including transliteration of Cyrillic; Translated title in English; Author (but no designation given); Title of periodical; Volume number; Part number; Date, including month; Pagination; Illustrations; Tables; References.

LL. Author (but no designation given); Title of article in original language; Translated title in English; Title of periodical; Volume number; (Part number not given); Pagination; Date, including month; (No indication of illustrations, references, etc).

RZI. (English language version). Title of article in English; Author (but no designation given); Title in original language (but Russian titles not transliterated); Title of periodical; Date (Year only); Volume number; Part number; Pagination; (No indication of illustrations, references, etc.); Indication of language.

It is noteworthy that three of the services commences the citation with the author and three with the title.

Reference

1. Collison, R. Abstracts and abstracting services. Santa Barbara, California, ABC-Clio Press, 1971, pp. 18-25.

CHAPTER 15

COVERAGE OF ARCHIVES BY THE SERVICES

In his background paper to the 1972 Unesco Symposium, Coblans makes the following points concerning the coverage of archives in the services:-

> "Bibliographical control here is understandably rather limited and mainly national. Of the 20 odd periodicals in the field the numbers covered are: LISA 8; ISA 3; RZI 2, and in effect they supplement each other. If LISA were to extend its scope to the extent of doubling the number of archives periodicals covered it would be fairly complete." (1)

Coverage of Periodicals in 1973

Investigation of the actual performances of the services in 1973 shows the following situation.

Title of Periodical	Covered by	
American Archivist	ISA	LL
Archivar	ISA	
Archives	ISA	LL
Archives et Bibliothèques de Belgique	ISA	
Archivmitteilungen	RZI	
Bibliotecas y Archivos	LISA	RZI
Cadernos de Biblioteconomia, Arquivisitica e Documentação	BS	RZI
Gazette des Archives	ISA	
Journal of the Society of Archivists	ISA	
Sovetskie Archive	RZI	

Total	BS	CCA	ISA	LISA	LL	RZI
10	1	0	6	1	2	4

Total Number of Archives Periodicals

Ulrich's International Periodicals Directory lists the following relevant titles not mentioned above:-

Archives Advocate	USA
Archiwista	Poland
Costa Rica. Archivo Nacional	Revista
Istorichoski Arkhiv	USSR

Italy, Ministero dell'Interno
Rassegna degli Archivi di Stato

Leveltari Kozlemenyek — Hungary

Revista Archivelor — Rumania

Undoubtedly, many local and national publications could be added to this list if further searches were carried out. Woodworth's Guide to Current British Journals, for example, gives the following additions:-

Caernarvonshire Record Office Bulletin

Irish Archives Bulletin

Dispersal of Material

Articles of interest to the archivist also appear in more general periodicals. This scatter is demonstrated clearly by an examination of LL's entries under 'Archives' in 1973. Relevant material was found by LL in the following titles:-

American Archivist
Archives
Bibliography, Documentation, Terminology
Cornell University Library Bulletin
Dartmouth College Library Bulletin
Film Library Quarterly
Fontes Artis Musicae
Georgia Librarian
Harvard Library Bulletin
IFLA News
Journal of Library History
Library History
Library of Congress Information Bulletin
Magyar Könyvszemle
Missouri Library News
Notes (Music Library Association)
RQ
Serif
SLA News
Unesco Bulletin for Libraries
Virginia Librarian

Total Yearly Number of Items

In 1973, LISA prepared 7 abstracts for archive materials. For its six periodical titles, ISA made 19 abstracts.

Non-journal material must also be included in any yearly estimate. In 1973, LL made just over 100 entries under 'Archives' subject headings, including periodical articles, books, pamphlets, etc.

Future Coverage

If the total coverage by the services in 1973 is a true representation of the amount of material available in the archive field, perhaps one or two of the abstracting services could be persuaded to give the subject more attention.

The problem of costs should not be ignored. For the services, it is doubtful whether coverage of this field would result in much increase of their subscription levels so the extra costs of processing might have to be absorbed into their existing financial structures.

From the archivist/user's point of view, how many would be prepared to pay a full subscription to services covering a good deal of irrelevant material?

Perhaps the answer is a separate survey of user needs in the field of archives.

Reference

1. Coblans, H. Background paper, Symposium of Editors of Documentation, Library and Archives Journals, Paris, Unesco House, 16-18 May 1972 (COM-72/CONF. 11/3), p. 12.

The summaries are intended to highlight the main points. It is hoped that they provide a fairly quick, readable guide to the work carried out in the study, but in order to simplify the difficult areas many supporting statements have been omitted. Reference should be made to the main chapters for fuller discussions.

1. Background to the Survey

A review of the literature concerning secondary services in the field of library and information science is given. The following problems are raised by the previous surveys: (1) prominence is given to "information science", "informatics", and "documentation" rather than to "library science" ; (2) varying lists of core journals have been generated; and (3) gaps in covering the primary literature and the amount of duplication between the services remain virtually unknown.

2. Profiles of the Services Investigated

Summaries are given of the main points of general interest concerning six international secondary services in the field: Bulletin Signalétique - Section 101, Science de l'information Documentation (BS); Computer and Control Abstracts, Chapter 8.5 (CCA); Information Science Abstracts (ISA); Library & Information Science Abstracts (LISA); Library Literature (LL); and Referativnyi Zhurnal: Section 59 - Informatics (RZI).

3. Organisation of the Present Study

Outlines the methodology adopted for the investigation. It was decided to concentrate on the 1973 issues of all the services. Each citation was examined for that year. Statistics were broken down into: (1) entries for periodicals; and (2) entries for non-periodical material. The dates of the periodicals covered were recorded and notes made on the titles of books and conference proceedings.

4. Some Basic Statistics

This chapter contains statistics concerning the performances of the services in 1973 in the form of diagrams and tables, together with commentaries on the results obtained. The main figures are:-

	Total Number of Abstracts or Entries	Abstracts or Entries for Periodical Articles	Abstracts or Entries for Non-Periodical Material
BS	3245	2124	1121
CCA	1337	1068	269
ISA	3721	1537	2184
LISA	2875	2512	361
LL	10401	5317	2488
(LL includes 2596 entries for citations with one page only)			
RZI	4524	3266	1258

The services covered the following number of periodical titles:-

	No. of Periodical Titles
BS	320
CCA	177
ISA	247
LISA	210
LL	221
RZI	331*

*Note. Contains an estimate of 40 titles

These figures were derived from the study of actual citations. For LISA and RZI they are rather lower than the estimates made in some previous investigations based on the lists of periodicals published by the services. The main languages covered by the services are also enumerated. English is by far the most important language in our field.

5. Subject Arrangements of the Services

The subject categories employed for the main sequences of the abstracting services are discussed and the number of abstracts entered in each category during 1973 noted. The lists of subject categories reflect the intertwining of library science and information science. RZI is shown to carry many entries for documentary reproduction equipment and automatic/scientific translation. This may explain why the Russian publication is such a large service in comparison with the other abstracting services. The different philosophies of subject arrangement - broad categories in CCA and ISA, rather closer sub-division in BS and RZI, faceted classification in LISA and specific subject headings in LL - are a barrier to users. If agreements on the exchange of material could be made it would be advantageous to utilise a switching language to signal the subject of a document. In this connection, descriptions are given by Verina Horsnell of work carried out by a team at the Polytechnic of North London School of Librarianship on an Intermediate Lexicon for Information Science.

6. Coverage of Periodical Articles by the Services

Ranking lists of periodicals for each service are given including, where possible the inclusive dates of the issues covered. Each ranking list is followed by a summary table showing the number of titles and the number of abstracts for journals with 1 citation; 2-9 citations; 10-14 citations; 15-24 citations; and 25-plus citations.

7. Core Periodicals

This chapter discusses the value of the concept of a list of core periodicals, particularly in relation to the field of library and information science. Factors leading to difficulties are isolated: the relative newness of the profession in its present form; the small number of practitioners; their lack of economic power; and the characteristic dependence on social institutions. What is a core periodical for a developing profession? Efforts are made to generate a core list based on the

previous work of Gilchrist and of Dansey, together with the findings of the present investigation. A list is given of 24 candidates for omission from the cores of Gilchrist and Dansey based on the 1973 data and a revised list containing 49 titles is offered. Several familiar titles are missing from this new list including the Journal of education for librarianship and Sovetskaya bibliografiya and it is suggested that different sets of core titles might be necessary, e.g., a "regional/country" core, a "special interest" core. It is demonstrated that the number of periodical titles required to achieve 90% coverage of the articles abstracted is rather high, viz.

BS	132 titles
CCA	180 titles
ISA	102 titles
LISA	104 titles
RZI	221 titles

8. Overlap of Periodical Titles

It was discovered that the services covered a grand total of 961 periodical titles (some non-English language titles appearing in RZI could not be identified). Of these, only 13 were covered by all six services. The full breakdown of overlap is:-

Coverage by:-	Number of Titles
1 service	692
2 services	144
3 services	61
4 services	32
5 services	19
6 services	13

The highest overlap between pairs of services was 89 titles shared by LISA and LL and a different set of 89 titles shared by BS and RZI. The least overlap was emonstrated by CCA and LL - only 26 titles. In considering periodical titles confined to two services the most affinity was again shown by LISA and LL; they gave sole coverage to 30 titles. Unique coverage by the CCA-LL combination was confined to just one title. Overlap in the number of articles covered from the 13 titles common to all six services is also discussed. It is shown that for several of these titles there are variations in the approaches of the services.

9. Coverage by the Services of a Representative Bibliography

The performances of the services in covering a bibliography on cataloguing and classification are assessed. The bibliography was a current one taken from the periodical, Library resources and technical services. The following results were achieved:-

	% of Items Covered
BS	31%
CCA	23%
ISA	42%
LISA	56%
LL	72%
RZI	30%
All	86%

These results are worse than those found by Dansey for bibliographies in the Annual review of information science and technology and it is suggested that bibliographic control of "middle ground" library and information science literature may be slacker than the "top-layer" coverage. The links between LISA and LL are again demonstrated with these two services giving unique coverage to more items than any other pair of services.

10. Alphabetical Subject Indexing and Retrieval Performance of the Services

An account is given by E. Michael Keen of "Testing the Subject Approach in Printed Indexes". This proposal for testing the printed subject indexes of the services was carried out as a separate investigation.

11. Time Delays for the Appearance of Citations to Periodical Articles in 1973

A section by Paul Dansey on delay times of the services entitled "Currency of the Services" investigates the performances of the services for articles contained in 12 titles. Comparisons are made with his own work carried out on the 1971 issues of the services and Gilchrist's study of the 1969 delay times in three services. The results are:-

	Delay Times in Three Studies - In Days		
	1969	1971	1973
BS	-	124	182
CCA	-	86	97
ISA	427	382	282
LISA	99	99	144
LL	-	-	282
RZI	165	194	225

It can be seen that CCA and LISA had the best currency and ISA and LL the largest delay times. BS, CCA, LISA and RZI have deteriorated in currency, whilst ISA has improved. However, ISA's delay times for the titles studied were still greater than those of the other abstracting services.

12. Coverage of Non-Journal Material by the Services

The importance of non-journal material to the field of library and information science is emphasised. ISA makes an invaluable contribution to its bibliographic control with wide coverage of US report material. BS, LL and RZI also cover respectable amounts of non-journal literature. CCA and LISA made few abstracts for this type of material in 1973; their efforts were mainly directed towards collective works and conference proceedings. There appears to be very little overlap in the services' approach to non-periodical literature, particularly for non-English language material, so that the user must consult all the services for a comprehensive view. Time delays for the coverage of non-journal material are not at all bad in ISA, LISA and LL (the other services were not investigated for this parameter). An estimate is given of the yearly amount of non-journal primary material based on the entries made in the secondary services during 1973. With the inclusion of books, pamphlets, reports, entries in collective works and conference proceedings, non-English language literature particularly French and Russian language material, patents and standards, the figure derived is 3713 items per year.

13. Abstracts - Origin

by

Norma Jackson

This chapter deals with the origin of abstracts published in three services - ISA, LISA and RZI. The following table shows a simple breakdown:-

Origin of Abstracts	ISA	LISA	RZI
Prepared by in-house staff	15 %	78.6%	73.4%
Author abstracts, etc.	30.3%	20.8%	20 %
Secondary Sources	40.6%	-	-
No abstract	14.1%	0.6%	6.6%

The high proportion of in-house abstracting by LISA and RZI is due to the fact that most of the articles they include do not carry original abstracts, i.e., abstracts-published-with-the-articles. Much material would be lost if these two services cut down their in-house activity.

14. Page Layouts and Bibliographic Description in the Services

The typographical layouts of the six services are reproduced. They demonstrate widely diverging views on the most suitable arrangements for meetings users' needs. The whole question of the presentation of information on the printed page is highly subjective. Important factors are the quality and colour of the paper used. The findings of a user survey carried out by LISA in 1970 into suitable layouts are discussed. The investigators were more confused at the end of the survey than at its beginning, although there were indications that users preferred some space between abstracts and that a mixture of bold, italic and roman founts led to some unease. The variety of bibliographic descriptions in the services is demonstrated. Three services commence entry with the author's name and three with the title of the article. The order of the other elements of bibliographic description also shows variations.

15. Coverage of Archives by the Services

The services covered 10 specialist archive journals in 1973 as follows:-

BS	CCA	ISA	LISA	LL	RZI	
1	0	6	1	2	4	(Includes some overlap)

The total number of periodicals in this field is discussed together with the dispersal of material in more general periodicals. Relevant material was cited from 21 different periodicals in the 1973 issues of LL. The total amount of archive literature appears to be relatively small and one or two of the abstracting services might be persuaded to give the subject more attention. However, the problem of costs should not be ignored. A separate survey of user needs in the field of archives is suggested.

Appendix
List of Periodical Titles Discovered during the Survey

A list of all the periodical titles discovered during the survey is given, sub-divided into the number of services covering each title. The list contains 961 titles and is not quite complete because some titles in RZI could not be identified. For each periodical a notional figure is entered for the number of items which might have been covered by the services in 1973. These estimates have been made chiefly with the abstracting services in mind and they are based on the data extracted for the survey. With the figures for LL included, the 961 titles published some 6,800 items which were covered by the services; without LL, the respective figures are 851 titles and 5847 items.

Conclusions

1. The major difficulty in the way of orderly, comprehensive bibliographical control of library and information science literature is the lack of knowledge concerning the total amount of primary literature. Without information about the material potentially available it is impossible to organise a secondary service structure capable of dealing with the literature. Lack of definition of the field is, of course, a barrier to obtaining estimates. This investigation has attempted to by-pass the problem of definition with calculations based on the material actually covered by the services in 1973. The figures derived show that there are some 10,500 items per year available for coverage. If the figures for LL are omitted, the abstracting services cover nearly 9,000 separate items a year. Almost 1,000 periodical titles should be abstracted for comprehensive coverage. Clearly, all the services fall very far short of these estimates. It is also possible that the amount of primary material available is larger than that covered by the combined efforts of the secondary services - in the test of performances in covering a bibliography reported in Chapter 9, 14% of the bibliography's entries were not covered.

2. In general, the present work appears to confirm previous investigations and conjecture. The secondary services differ in their views concerning the scope of the field. Thus, they cover different sub-sets of the primary literature, with LISA and LL giving greater attention to library science and ISA concentrating on information science and providing heavy coverage of US report literature whilst BS and RZI occupy more central ground. These differences extend to: (1) the type

of literature covered with CCA and LISA concentrating on periodical material and ISA on non-journals, particularly reports; (2) languages and regions, with each service tending to give closer attention to the primary material available in its immediate geographical area.

3. The varying approaches are brought into sharp focus by considering the large number of periodicals covered by only one service:-

	No. of Unique Periodical Titles
BS	138
CCA	63
ISA	142
LISA	87
LL	106
RZI	126

4. Although variations exist in viewpoint concerning the subject field and in the material covered, there are enough points of contact betweenthe services to show that a single subject discipline might exist with a little effort from workers in the field. For example, the subject arrangements of the services are not too dissimilar, periodicals like the Journal of librarianship are covered by all six services and one suspects that many library school lecturers must use both ISA and LISA to keep up-to-date with the literature of interest to them.

5. It is, of course, possible to hold the opinion that the several services are in existence, apparently healthy, and to allow the present situation to continue. Perhaps there really are identifiable branches of our field and each service can concentrate on a speciality with a leavening of material from other specialist areas. The present investigator does not hold this view. Enough comparative data are now available from several surveys to show that one word best characterises our secondary services - they are uneven. Examples are legion, but among the best are the poor showing of ISA with regard to Aslib Proceedings and Libri in 1973 (1 article abstracted from Libri and that for a 1971 issue); the very low number of abstracts made for Nauchno-teknicheskaya informatsiya by LISA in 1973; the long delays in the LL indexing of foreign language material; and the uncertainty of knowing what will be covered by RZI - some articles in, for example, the Library Association Record are covered while articles of a similar standard are left untouched.

All the services demonstrate this uneven approach and it may well be that the user is served worse because of this factor than if he could be certain that some kinds of material were deliberately omitted through declared policy. The user can never be sure that all the literature he requires will be found in a single service. In the author's view, it should not be necessary to subscribe to three or four increasingly expensive services in order to gain access to the literature.

6. There are other reasons for considering carefully whether the present situation should be allowed to continue. The low circulation of the services - LISA 2,150 copies, ISA 1,200, LL 2,900, BS 1,500 - do not lead to confidence in the ability of the producers to finance the improvements necessary if the profession is to receive the standard of service required for its advancement. For example, it has not yet been possible to computerise the production of ISA or LISA and one suspects that the real reasons are lack of the manpower and finance necessary to ensure that the

change-over from manual methods proceeds smoothly. As a result, the field lacks a true English-language foothold in the development of vital spin-off services like SDI and facilities for retrospective searching of magnetic tape data bases. It is doubtful whether the existing structures of the English-language services, particularly in an atmosphere of economic uncertainty, will be capable of promoting these developments.

7. The question is, can action be taken to overcome these problems. The present investigator feels that co-operation both in the exchange of material and of expertise, would help to ensure wider, more disciplined coverage of the primary material and might lead to a soundly based financial structure capable of providing funds for modern, sophisticated services.

8. It is significant that each service makes unique contributions to the bibliographical control of our literature and co-operation might be started by making a wider use of these specialisations. BS contributes control of French language material; CCA has computer expertise and a strong marketing organisation; ISA concentrates on non-journal material; LISA abstracts library science periodicals more fully than the other services and has full-time, in-house staff; LL is the largest indexing service in the field and the Wilson Company has years of experience in providing such services; RZI covers Russian language material and the East European literature well.

9. To echo Dr. Coblan's suggestion at the 1972 Unesco Symposium of Editors - would it not be sensible to have only one English-language abstracting service? A single, comprehensive service combining the talent and expertise available within the existing services would be capable of providing a very high level of bibliographical control. With the present ISA and LISA concentrating on the things they do best and CCA contributing computer/commercial expertise, bi-lateral agreements with BS and RZI might be enough to cater for large areas of the non-English language material. Other languages could be covered by the use of an outside panel of abstractors which works well for LISA. Admittedly, one large service would probably be more expensive than any single present-day service, but more sophisticated products could be offered and perhaps sections only of the complete service might be made available at lower subscription rates. The important points are that given such a structure the user could be confident that the enlarged service was providing comprehensive coverage of the field and he would not be paying for abstracts of the same material published in different services.

10. The main problem is to discover whether the climate of opinion favours co-operative moves of this kind. In particular, it is necessary to seek the views of the publishers and sponsors of the various services.

Recommendation

It is recommended that Unesco organise a meeting of the editors and representatives of the publishers of the six services discussed in this investigation. The possibility of inviting other interested persons should be considered, but it is felt that the meeting should be a relatively small one in order to maximise the chances for a free exchange of views. The main purpose of the meeting should be:-

(1) to discuss the present study;
(2) to investigate whether co-operation between the existing services is possible, bearing in mind the needs of users for wider bibliographic control in the field;
(3) to explore the possibility of linking the existing English-language services in order to provide a single, comprehensive service in that language.

APPENDIX

LIST OF PERIODICAL TITLES DISCOVERED DURING THE SURVEY

The following list of all the periodical titles discovered during the course of the survey is sub-divided, for further interest, into the number of services covering each title. The list is not quite complete because some Russian language titles could not be identified, so the total number of periodicals covered by the six services during 1973 amounts to about 1,000 titles.

Estimate of the Number of Items for 1973

After each title a notional figure is given for the number of items which might have been covered by the services during 1973. These estimated figures have been made with the abstracting services in mind, except when LL is the only service covering the titles.

It must be emphasised that the estimates are based on the data extracted from each service during the course of the survey - in only a few cases was it possible to check the accuracy of the figures against the actual journals.

The following notes will be helpful in understanding how the estimates were made.

1. The estimated figures have been based on what could have been covered by the services during 1973.

2. The general method for estimating can be demonstrated by explaining how the figure for Information was reached. The data extracted for the survey showed the following number of items covered:-

BS	CCA	ISA	LISA	LL	KZI
2	6	11	19	12	2

LISA's figure was, therefore, taken as being the "best performance".

3. Some effort was made to allow for the coverage of different issues of the periodicals. For example, the title Audiovisual Instruction on the CCA-ISA list was covered in the following manner:-

CCA		ISA			
Feb 73	Apr 73	Nov 72	Mar 73	Apr 73	Sept 73
1	1	1	1	1	1

In making the estimate, the single item covered by both services in the Apr 73 issue wa was presumed to be same article. Otherwise, all the items were treated as potentially available for abstracting and the notional figure of 5 has been entered on the list. Of course, this "best" figure was achieved by none of the six services.

4. When time delays have had an obvious effect on the number of items covered by a service, these have been taken into account. For example, the AIB Bollettino

d'Informazione is covered by BS, LISA, LL and RZI. The data collected show the following coverage:-

BS	LISA	LL	RZI
17	8	22	2

The LL figures are for the 1971 issues of the journal and have, therefore, been ignored. The BS total include one issue in 1971 and three issues in 1972; LISA's three issues in 1972; and RZI covers two issues in 1972.

A personal judgement was made that the services should have covered the 1972 issues and BS's figures, as the highest, have been taken but for the 1972 issues only (14 items).

5. In some cases a figure of '0' has been recorded because of the effects of time delays, e.g., the LL coverage of both Architectural Forum and Architectural Record was of issues published in 1971 and they should have been covered in LL 1971 or 1972.

6. In other cases a "?" has been entered when it is likely that some material should have been covered, but the data are insufficient for even a "guestimate", e.g., Barn och Kultur, covered only by LL, but the issues indexed are dated 1971.

7. Occasionally, when the difference in numbers between LL and the abstracting services is very large, the LL figure is given in parentheses after the figure for the abstracting services. In general, the LL figures are given in parentheses as a reminder that the abstracting services need not necessarily cover all the material entered in an indexing service.

8. The coverage of book reviews and letters presented problems. The policy eventually adopted was to include them in the count when they were from such titles as the Journal of Librarianship and the Journal of the American Society for Information Science, but to exclude those in the more general periodicals, e.g., Australian Library Journal, Library Association Record.

Summary of the Results

Based on the methods outlined above, it would appear that some 6,800 items from over 900 periodicals might have been covered by the services in 1973.

The following summary table demonstrates how far short each service falls in its total coverage of the primary journal literature.

	No. of Periodical Titles	No. of Items Covered
Survey's results	961	6844
BS	320	2124
CCA	177	1068
ISA	247	1537
LISA	210	2512
LL	221	7913*
RZI	331	3266

*Note. LL's figure includes 2,596 citations of one page only, entries that need not be covered by the abstracting services, e.g., news items, and a number of pre-1972 citations.

It should be remembered that the assumption made in this survey is that our field covers a wide spectrum of activities. As a result, deficiencies in the secondary services are probably due to conscious policy decisions as much as to real inadequacies. It would, of course, be very costly to cover the total amount of primary journal literature discovered during this survey.

A word needs to be said about the figures given for LL. The number of items covered by this service includes many short articles which the other services need not abstract. The important statistic for LL is the number of titles covered.

In spite of the provisos made, the shortfalls are significant both in terms of the number of journal titles covered by each service and in the number of items abstracted or indexed.

It is certain that the users suffer inconvenience from these shortfalls because several services must be consulted in order to ensure that no material is overlooked.

Estimate for Abstracting Services only

Because of the doubts expressed before in this report concerning the size of the figures given for LL, the estimate below shows the effects of disregarding the indexing service.

Abstracting Services Only - 1973

No. of Periodical Titles	851
No. of Items Covered by the Abstracting Services from these Titles	5847

It is certain that LL gave unique coverage to some items in 1973 which should also have appeared in the abstracting services.

PERIODICALS

COVERAGE BY ALL SIX SERVICES

BS; CCA; LISA; LL; RZI

Aslib Proceedings 43
Bulletin of the Medical Library Association 25
College & Research Libraries 26
Information (Parts 1 and 2) 19
Information Storage and Retrieval 40
Journal of Documentation 16
Journal of Librarianship 21
Journal of the American Society for Information Science 73
Library Quarterly 12
Library Resources & Technical Services 41
Nauchno-tekhnicheskaya Informatsiya Series 1 and 2 209
Special Libraries 59
Unesco Bulletin for Libraries 39

13 titles 623 items

COVERAGE BY FIVE SERVICES

BS; CCA; ISA; LISA; LL

Journal of Education for Librarianship 18
Journal of Library Automation 20

2 titles 38 items

BS; CCA; ISA; LISA; RZI — All Abstracting services

Aktualne Problemy Informacji i Dokumentacji 42
Documentaliste 15
IEEE Transactions on Professional Communications 10
Journal of Chemical Documentation 54
Journal of Micrographics 24
Methods of Information in Medecine 10
Nachrichten für Dokumentation 30
Science 5
Studii şi Cercetări de Documentare 20

9 titles 210 items

BS; CCA; LISA; LL; RZI

Herald of Library Science 26
Microdoc 10
Tidskrift för Dokumentation 21

3 titles 57 items

BS; ISA; LISA; LL; RZI

International Library Review 30
Library Journal 91
Library Trends 30
Libri 28

4 titles 179 items

CCA; ISA; LISA; LL; RZI

Microform Review 14

1 title 14 items

COVERAGE BY FOUR SERVICES

BS; CCA; ISA; LISA

Information Scientist 10

1 title 10 items

BS; CCA; ISA; RZI

Angwandte Informatik 7
Information Processing Letters 18
Journal of the Washington Academy of Sciences 3
Law & Computer Technology 17
Management Science 4
Photographic Science and Engineering 4

6 titles 53 items

BS; CCA; LISA; RZI

ANRT Information et Documentation 21
BLL Review 9
Informatik 30
Program 20
Rivista dell'Informazione 12

5 titles 92 items

BS; ISA; LISA; LL

American Libraries 28 (166)

1 title 28 items

BS; ISA; LL; RZI

Bibliography, Documentation, Terminology 9 (80)
Library of Congress Information Bulletin 9

2 titles 18 items

BS; LISA; LL; RZI

AIB Bolletino d'Informazioni 14
Bibliotekar' (Moscow) 18
Bulletin des Bibliothèques de France 21
Indexer 11
Zentralblatt für Bibliothekswesen 41

5 titles 105 items

CCA; ISA; LISA; RZI

Československá Informatika 36
Journal of Systems Management 2
NRCd Bulletin (now Reprographics Quarterly) 4
Probleme de Informare şi Documentare 28
Technická Knihovna 33
Tudományos és Müszaki Tájekóztatás 18

6 titles 121 items

CCA; LISA; LL; RZI

LARC Reports 3
Library Association Record 51
PLA Bulletin (Pennsylvania Library Association) 6

3 titles 60 items

ISA; LISA; LL; RZI

Mitteilungsblatt (Verband der Bibliotheken des Landes Nordrhein-westfalen) 26
Special Libraries Association. Geography and Map Division Bulletin 13
Wilson Library Bulletin 41

3 titles 80 items

COVERAGE BY THREE SERVICES

BS; CCA; ISA

Analytical Chemistry 2
Communication of the ACM 8
Euro Spectra 4
Operations Research 2

4 titles 16 items

BS; CCA; LISA

Computer Journal 2
Documentation et Bibliothèques 19
Sci-Tech News 4

3 titles 25 items

BS; CCA; LL

Quarterly Bulletin of the International Association of Agricultural Librarians and Documentalists 22

1 title 22 items

BS; CCA; RZI

Automatisme 20
Bell Laboratories Record 2
Neue Technik im Büro 22
Rechentechnik/Datenverarbeitung 18

4 titles 62 items

BS; ISA; LISA

Annals of Library Science and Documentation 4
Library Science with a Slant to Documentation 24

2 titles 28 items

BS; ISA; RZI

Chemical Engineering Progress 1
Dokumentesyon Kenkyu 19
JOLA Technical Communications 4
OSTI Newsletter 6

4 titles 30 items

BS; LISA; LL

Accademie e Biblioteche d'Italia 3 (27)
Inspel 10
International Cataloguing 14

3 titles 27 items

BS; LISA; RZI

Association des Bibliothécaires Français. Bulletin d'Informations 8
Banque des Mots 22
DFW 17
Information Retrieval & Library Automation Letter 12
Nature 7
Sovetskeo Bibliotekovedenie (Formerly Biblioteki SSSR) 34
TA Informations 5
Zeitschrift für Bibliothekswesen und Bibliographie 26

8 titles 131 items

BS; LL; RZI

College & Research Libraries News 8
Library of Congress Cataloguing Service. Bulletin 2

2 titles 10 items

CCA; ISA; RZI

Datamation 11
IEEE Transactions on Computers 5
Mechanizace a Automatizace Administrativy 16

3 titles 32 items

CCA; LISA; LL

Indian Librarian 13
Ontario Library Review 8

2 titles 21 items

CCA; LISA; RZI

Data Processing 7
IBM Nachrichten 13
Knižnice a Vedecké Informácie 19
Research in Librarianship 6

4 titles 45 items

ISA; LISA; LL

Australian Academic and Research Libraries 11
Drexel Library Quarterly 16
BIA Journal (Hawaii Library Association) 4
Publishers Weekly 8 (150)
RQ 16
School Media Quarterly 11

6 titles 66 items

ISA; LL; RZI

Przeglad Biblioteczny 21

1 title 21 items

LISA; LL; RZI

Assistant Librarian 23
Australian Library Journal 44 (90)
Bibliotekarz 23
Bibliothekar 27
Biblos (Austria) 11
Illinois Libraries 68
Law Library Journal 18

Library 2
Library & Information Bulletin (Library Association) 7
Library Review 7
New Library World 44
New Zealand Libraries 36
SLA News 23
Sovetskaya Bibliografiya 60

14 titles 393 items

COVERAGE BY TWO SERVICES

BS; CCA

ASTM Standardization News 1
Chemie Ingenieur Technik 2
Computer Programs in Biomedicine 2
Electronic Components 2
Feingeräte Technick 3
Fertigungstechnick und Betrieb 2
International Atomic Energy Agency Bulletin 2
ISLIC Bulletin (Israel Society of Special Libraries and Information Centres) 7
Naturwissenschaften 1
OMKDK Tudományos Tájekoztatás Elmelete Gyakorlata 9
L'Onde Electrique 1
Radio Television 1
Revue Française d'Automatique Informatique Recherche Operationnelle 5
Technik 4
Welding Production 1

15 titles 43 items

BS; ISA

Annals of Economic and Social Measurement 7
Chemical Engineering 1
Computers and Automation 7
Computers and the Humanities 5
Computing Surveys 1
Psychophysiology 1
Revue d'Informatique Médicale 2

7 titles 24 items

BS; LL

American Journal of Pharmaceutical Education 3
Bookmark 20
Magyar Könyvszemle (14)
Restaurator 4

4 titles 41 items

BS; RZI

BIT 46
Bulletin du CIMAD 30
Cadernos de Biblioteconomia, Arquivistica e Documentação 5
Computer Praxis 11
Computer Studies in the Humanities and Verbal Behavior 3
Courrier de la Normalisation 4
Etudes et Réalisations 6
IBM Journal of Research and Development 2
Informatique 8
Informatique et Gestion 8
Infosystems 7
Org Mass Spectrometry 1
Physics Bulletin 2
Poligrafika 2
Poligrafiya 7
Prague Studies in Mathematical Linguistics 15
Semiotika 3
Software-Pract. Exper. 3
Systèmes d'Informatique 4
Travail et Méthodes 6
Tudómanyszervezési Tájékoztató 32
Vestnik Akademii Nauk SSSR 10
Voprosy Filosofii 14
Voprosy Yazikoznsniya 3

24 titles 232 items

CCA; ISA

Archivum Automatyki i Telemechanika 2
Audiovisual Instruction 5
Control and Cybernetics 1
Kybernetes 3
Mekhanizatsiya i Avtomatizatsiya Proizvodstva 2
Mekhanizatsiya i Avtomatizatsiya Upravleniya 2
Nucleus 1

7 titles 16 items

CCA; LISA

Building 4
CIIG Bulletin 8
Open 13

3 titles 25 items

CCA; LL

LASIE (Information Bulletin of the Library Automated Systems Informati n Exchange) 22

1 title 22 items

CCA; RZI

ADL Nachrichten 35
Applied Physics Letters 2
Bürotechnik Automation + Organisation 48
Communicator of Scientific and Technical Information 3
Cybernetica 2
Data Report. Informationen 8
Engineering 1
IEEE Transactions on systems Management and Cybernetics 2
Informatie 4
Information Sciences 2
Infrared Physics 1
Journal of the Association of Computing Machinery 5
Management Informatics 7
Monthly Technical Review 2
National Electronics Review 1
Nauchnye i Tekhnicheskie Biblioteki SSSR 135
Systems Technology 2
Zeitschrift für Organisation 4

10 titles 264 items

LSA; LISA

CALL 17
Revista da Biblioteconomia de Brasilia 23

2 titles 40 items

ISA; LL

American Archivist 6 (56)
Archives (9)
Cable Libraries 2
FID News Bulletin 8
Learning Today 9
Library Scene (25)
New York Times 2
New York Times Book Review 2
News Notes of California Libraries 19
Scholarly Publishing 8 (41)

10 titles 90 items

ISA; RZI

American Scientist 2
Computer Decisions 4
IMC Journal 10
Informatyka 7
IARC Newsletter 2
Pattern Recognition 1
Prague Bulletin of Mathematical Linguistics 20
Standarty i Kachestvo 18

Zagadnienia Informacji Naukowej 10
Zagadnienia Nauroznawstwa 13
Zyoho Kanri. Information and Documentation -24

11 titles 111 items

LISA; LL

Africana Library Journal 1 (13)
Architectural Review 2
Biblioteksbladet 64
Bogens Verden 51
Buch und Bibliothek 34
Canadian Library Journal 34
Catalogue & Index 9
Catholic Library World 44
Film Library Quarterly 8
Fontes Artis Musicae 3
Harvard Library Bulletin 11
IPLO Quarterly (Institute of Professional Librarians of Ontario) 16
Journal of Library History 12
Law Librarian 7
Librarians for Social Change 6
Library History 3
Nigerian Libraries 17
Nordisk Tidskrift för Bok-och Biblioteksväsen 1 (5)
Notes (Music Library Association) 1 (18)
Pakistan Library Bulletin (12)
Picturescope 3
Protean (now ceased) 7
Quarterly Journal of the Library of Congress 3 (20)
Scandinavian Public Library Quarterly 21
School Librarian 5
Service Point 2
Singapore Libraries 4 (10)
South African Libraries 22
Western Association of Map Libraries Information Bulletin 10
YLG News 9

30 titles 423 items

LISA; NZI

Australian Special Libraries News 6
Bibliotecas y Archivos 4
Bibliotekar (Sofia) 20
Bibliotekovedenie i Bibliografiya za Rubezhom 20
Bibliotheksdienst 32
Čtenář 19
Education Libraries Bulletin 7
Toshokan Zasshi 12

8 titles 120 items

IL; RZI

APLA Bulletin 14
California Librarian 32
IFLA News 4
North Carolina Libraries 2 (10)

4 titles 52 items

COVERAGE BY ONE SERVICE ONLY

BS

Acta ci Venez 1
Advanced Technology/Libraries 15
Afinidad 1
Agron J 1
Aircraft Engineering 1
Akademiia Nauk Gruzinskoii SSR Vychislit Centr Orudy, H. SSR 1
Almanacco Biblioteche d'Italia 2
Analusis 1
Ann Mines 4
Arb Bibliothekar-Lehrinstitut Landes Nordrhein-Westfalen 2
Arb Med Soz-Med Praventivmed. 3
Arts et Métiers 3
Aspects Tech Secur Rout 1
Association des Bibliothécaires Suisses, Ass Suisse Documentation, Nouvelles 13
ASTM Special Technical Publications 1
Avtomat Vychislit Tekh 2
Babel 13
Beiträge Inform.-u. Dokumentation-Wissenschaft 0
Ber Dtsch Rheol Gesellsch 1
Ber Landwirtsch 1
Bbg Fr 14
Bibliotekar (Belgrade) 19
Bild u. Ton 1
Bilt Dokument., Fl 1
Biomedicine 1
Biul Fonogr 1
Bol. Document Inform Sci-tec 1
Bol. Inform. Document. 2
Bol. Inst. Angola 1
Bull. Ass. Rég. et Rech. Sci. Reims 1
Bull CIS 1
Bull Commiss Normalisat Traitement Inform 4
Bull Inform AIEN 1
Bulletin of the Institute of International Statistics 3
Bulletin IRIA 2
Bulletin ISO 2
Bulletin Mensuel de Normalisation Fr 5
Bulletin Soc Chim Fr 2
Cah Linguist Theor Appl 0
Canadian Journal of Soil Science 1
Caractère 3
Cartographic Journal 1

BS (cont.)

Centro Nazion Studi Inform Roma Not Commerc 1
CETIM Inform 1
Chartered Mechanical Engineer 1
CODATA Bulletin 1
Colston Papers 0
Computor: Characterist Rev 0
CR Acad Bulg Sci 1
CZ-Chem-Tech 2
Data Systems 4
Deutsche Zeitschrift ge dan-u. Stoffw-Krankheit 0
Docu Mycol 1
Draht 1
Echo Rech 1
Electron Design 1
Electron Microélectron Industr 1
Electronics 1
Entret de Bichat Med 2
Ericsson Tech 1
Europhysics News 1
Food Technology 2
Fortschr Chem Forschung 1
Francophonie 1
Fujitsu Sci Tech J 1
Galvano 1
Gas Wärme International 1
Geburtsh. Frauenheilkde. 1
Ghana Journal of Science 1
Hommes et Tech 3
IEEE J Solid-State Circuits 1
Imprimerie Nouvelles 9
Industr Aton Spatiales 1
Industr d. Carta 1
Inform. Chim. 1
Inform. Géraul Therm 1
Installatore Ital 1
Institut Belge Amelior Better Publ 1
International Associations/Associations Internationales 3
International Electron 2
Izvestiya Akademii Nauk Kazakh SSR, Seriya Fizkia, Matematika SSSR 1
Izvestiya Centre Bibl Balg Akademii Nauk 7
Izvestiya Mat Inst Sofia 1
Izvestiya Tomsk Politekh Inst S.M. Kirova SSSR 1
Jap. Electron Engineering
Journal of Applied Probability
Journal Audiovisuelle 3
Journal of Automatic Engineering 1
Journal Biol Photogr. Ass 0
Journal Chem Soc Perkins Trans, 1 1
Journal of Data Processing and Office Machinery 1
Journal of Educational Research 1
Journal of the Faculty of Education Shinshu University 1
Journal of the Faculty of Liberal Arts Shinshu University 1
Journal of Geography 1
J. Télécommunications 1
Journal of the Indian Institute of Science 1
Journal of the Institute of Engineers (India), Industrial Developments in General Engineering 1

BS (cont.)

Journal of the International Association of Math Geol 1
J. Sic Industr. Res. 1
Kerntechnik 1
Language 9
Language and Speech 1
LATV PSR Zinat Akad Vest SSR 1
Lettre Centre Rech.Sci Vie 1
Limba Romana 1
Management Fr 2
Marine Pollution Bulletin 1
Massachusetts Institute of Technology Research Laboratory in Electronics Quarterly Progress Report 1
Mathematical Sci Hum 1
Mem Inst Oceanography 1
Meta 29
Ministry of Agriculture Bulletin of Technical Information 1
Mitteilungen Biol Bundesanst Land-und Forstwirtschaft 1
Movoznavstvo 1
Nachrichten-Tech 1
Nervenarzt 1
New Phytologist 1
News of Sci Abstracting and Indexing Services 8
Not IRF Roma 1
Nouv. Rev. Opt. Appl. 1
Obstetrics and Gynecology 1
Opt Communic 1
Padiatr und Padol 1
Pathol Europe 4
Pharm Industr 1
Photographie 1
Poligrafia 1
Polygraph 16
Proceedings of the American Society of Civil Engineers. Journal of the Soil Mechanics Foundation Division 1
Proceedings of the Institute of Electrical and Electronic Engineers 1
Proceedings of the Japanese Academy 2
Process Engineering 1
Produttivita 4
Przeglad Geod 1
Przemysl Chem 1
Pubblica Lettura 1
Qual Progr 1
R. Maroc Centre National de Documentation, Index Retrospect D.N 1
R.A.D.A.R. Canada 1
Rail International 2
Realtà Econ 1
Relat Communic Inst Invest Sci Angola 0
Répert Thèses Doctor. Univ. Langue Fr. 1
Rev Administr 3
Rev Gén Therm 1
Rev Marché Commun 1
Rev Med 1
Rev Tech Thomson-CSF 1
Rev Univ Nacion Cordoba 0

ES (cont.)

Ric Sci
Riv Trim Sci Amministr 2
Sbornik Ved Pracci, Vys Sk Chem-Technol. Pardubice 1
Science de l'Information 33
Sciences 3
Search 1
Siemens Zeitschrift 2
Sis e Automaz 1
Socio-economic Planning Science
Soviet Cybernetics Review 0
Spis Balg Akad Nauk 2
Stomatologiya 1
Stud Cerc Calc Econ Cibern Econ 1
Stud Cerc Mat 1
Taxon 1
Techniques d'Instructions 1
Terminol Bull (Italy) 3
Toshiba Rev. International edition 1
Transactions .. Soc. Canada 0
Travail Sécur 1
Triangle 1
Trudy Moskov Energet Inst SSSR 1
Uhli' 1
Univ Nacion Tucuman, Fund Inst Miguel Lillo Mix 1
Usine Nouvelles 9
VDI-Zeitschrift 1
Verkehrsannalen 1
Visual Education 2
Wasserwirtsch-Wassertech 1
Werkstattstech, Z Industr Fertig 1
West Electr Engr 1
Wien Z Innere Med Grenzeb 1
Z Elektr Inform-u Energietech 1
Z Krebsforsch Klin Onkol 1
Z Wirtsch Fertig 2
Zentralblatt Chir 2
Zero, Un, Informat Manag 3
Zhurnal Nauch Prikl Fotogr Kinematogr SSSR 2

188 titles 420 items

CCA

Acta Crystallographica Section A 4
Acta Informatica 1
AEDS Monitor 1
British Journal of Radiology 1
Bulletin of the Operations Research Society of America 6
Business Systems & Equipment 1
CAMAC Bulletin 1
Canadian Datasystems 4
Chemical Technology 1
Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences
Série A: Sciences Mathématiques 1

CCA (cont.)

Computers in Biology and Medicine 1
Control Cibernetica y Automatizacion 0
Cybernetics 0
Decuscope 1
Design Engineering 1
Electronics and Power 1
Elektrie 1
Elektrik Muhendisligi 1
Elektrotechnik und Maschinenbau 1
Elettrotecnica 1
Elteknik 1
Energetyka 1
IBM Technical Disclosure Bulletin 9
IEEE Transactions on Nuclear Science 1
IEEE Transactions on Reliability 1
Industrial Medicine and Surgery 1
Information & Control 1
Inorga 1
Instruments and Experimental Techniques 1
IVA-Tidskrift för Teknisk-Vetenskaplig Forskning 1
Japanese Telecommunications Review 1
Jena Review 2
Journal of Nuclear Medicine 1
Journal of Research in Music Education 2
Journal of the American Chemical Society 1
Journal of the Association for the Advancement of Medical Instrumentation 2
JPL Quarterly Technical Review (Jet Propulsion Laboratory, Cal Tech) 1
Maschinenbau Technik 1
Maschinenmarkt 1
Meteorologische Runschau 1
Metra 1
Modern Data 2
Nuclear Engineering and Design 2
Printing Technology 2
Problemy Bioniki 0
Przeglad Elektrotechniczny 1
Qualität und Zuverlassigkeit 1
R & D Management 1
Radiochemical and Radioanalytical Letters 1
Review of Scientific Instruments 1
RSC Railway System Controls 1
Signal 1
Sperry Technology 0
Technische Information GRW (VEB Gerate und Regler Werke) 1
Teknisk Ukeblad 1
Telecommunications and Radio Engineering Pt. 2 (tr. of Radiotekhnika USSR) 1
Thin Solid Films 1
TNO Nieuws 2
Transactions of the American Nuclear Society 1
Transmission and Distribution 1
University of Manchester Reg Com Cont Lit & Linguist St Newsletter 1
Wireless World 1
X-Ray Focus 1

63 titles 85 items

Accessible 1
Acta Psychologica 0
Aerospace Medicine 1
Akademiia Nauk Grazinskoi SSR, Tiflis. Soobshchaniya 0
Akademiia Nauk SSSR Institut Russkogo Iazyka 0
American Behavioral Scientist 1
American Journal of the Medical Sciences 1
American Paint Journal 0
American Psychologist 1
American Society for Information Science Newsletter 1
American Society for Information Science. Special Interest Group in Technology, Information and Society (sic.) 1
Annales des Télécommunications 0
Annales Universitatis Mariae Curie-Sklodowska, Sectio F, Humaniora 0
Appita 2
Archeion 2
Archivalische Zeitschrift 0
Archivar 0
Archives et Bibliothèques de Belgique 0
Archives of Surgery 1
Association of Research Libraries Minutes 0
AV Communication Review 7
Avtomatyka 0
Behavior Science Notes 1
Biblos-schriften 1
BioScience 1
Biuletyn Osrodka Dokumentacji i Informacji Naukowej PAN 0
British Medical Journal 0
Bulletin de l'Académie Polonaise des Sciences. Série des Sciences Mathématiques, Astronomiques et Physiques 0
Bulletin of Mathematical Linguistics 1
Cahiers Médicaux Lyonnais 1
CAS Report 4
Chemical & Engineering News 24
Classification Management Journal 0
Clinical Toxicology 1
Commutation & Electronique 2
Computer Weekly 0
Computers and Biomedical Research 2
Computerworld 11
Computing Newsletter for Schools of Business 4
Contemporary Sociology: a Journal of Reviews 0
Copyright Bulletin 0
Current Contents, Life Sciences 0
Current Municipal Problems 1
Data Processing Digest 2
Data Processor 1
Drug Information Journal 0
Economic Computation and Economic Cybernetics Studies and Research 1
Editing Technology 0
Editor & Publisher 1
EDP Analyser 1
EDP Industry Reports 1
Ekonomicheskaya Gazeta 0

ISA (cont.)

Electronic News 1
Ergonomics 0
Fernmelde Praxis 0
Five Associated University Libraries Newsletter 1
Frontiers of Pattern Recognition 1
Gazette des Archives 0
Geodeticky a Kartograficky Obzor 1
Government Data Systems 2
Hospital Formulary Management 1
Index to Current Urban Documents 1
Information Processing 1
Information Science Abstracts 0
Instructional Technology 0
Instrumentation in the Aerospace Industry 1
International Journal of Man-Machine Studies 1
Izobretatel'stvo Standartizatsiia i Kachestvo 0
Izvestiya Akademii Nauk Estonskoii SSR, Seriya Fizkia, Matematika (Tallinn) 0
Izvestiya Vysshikh Uchebnykh Zavedenii. Priborostroenie 1
Johns Hopkins Medical Journal 0
Journal of Applied Meteorology 1
Journal of Chemical Education 2
Journal of Experimental Psychology 1
Journal of Learning Disabilities 1
Journal of Medical Education 1
Journal of the American Medical Association 0
Journal of the American Statistical Association 1
Journal of the Association of Computing Machinery. Special Interest Group in Programming Languages. Notes 0
Journal of the Society of Archivists 4
Junior College Research Review 1
Jurimetrics Journal 2
Keimyo Kokugogaku 0
Kybernetika 1
Lenguaje y Ciencias
Literaturnaya Gazeta 0
Mathematical Biosciences 1
Mayo Clinic Proceedings 1
Medical & Biological Engineering 1
Medical Marketing and Media 0
Micro-News Bulletin 0
Militärtechnik 0
Modern Packaging 2
Nauka i Tekhnika 0
Naval Research Logistics Quarterly 1
Notre Dame Lawyer 0
Now Available (NTIS) 1
SRDS News 1
Orvosi Könyvtáros 4
Panstwo i Prawo 0
Perception & Psychophysics 0
Podstawy Sterowania 0
Policy Sciences 3
Pomiary Automatyka Kontrola 1
Poste e Telecommunicazioni 0

LISA (cont.)

Prace Instytutu Bibliograficznego 0
Prasa Techniczna 2
Priroda 1
Problemy Peredachi Informatsii 0
Produktivite-Verimlilik 0
Psychology of Learning and Motivation 0
Psychology Today 0
Psychonomic Science 0
Public Administration Review 1
Public Opinion Quarterly 1
Rassegna degli Archivi di Stato 0
Recherche Technique, Bulletin d'Information de l'Association Nationale de la Recherche Technique 0
Research/Development 2
Revista da Escola de Biblioteconomia da Universidade Federal de Minas Gerais 3
Revue de l'Institut Français du Pétrole et Annales des Combustibles Liquides 0
Revue Générale de l'Electricité 0
Roczniki Biblioteki Polskiej Akademii Nauk w Krakowie 0
Roczniki Biblioteczne 4
Sbornik Archivnich Praci 0
Science Dimension 1
Science News
Sen-ito Kogyo 0
Software World 1
Special Libraries Association. Boston Chapter News Bulletin 2
Standards Engineering 1
Svensk Papperstidning 2
Technical Communications 0
Trudy Kazanskogo Aviatsionnogo Instituta 0
Trudy Leningradskogo Tekhnologicheskogo Instituta Tsellyulozno-Bumazhnoi Promyshlennosti 0
Unesco Courier 0
UW Library News (University of Wisconsin) 2
Vestnik Moskovskogo Universiteta. Zhurnalistika 0
Videocassette & CATV Newsletter 6
Visible Language 0
Voprosy Psikhologii 1
World Meetings: Social and Behavioral Sciences; Education and Management 0
Zastosowania Matematyki 0

112 titles 165 items

USA

Abstract Journal: Informatics 1
ACLS Newsletter 2
Applied Economics 1
Architects' Journal 1
ARLIS Newsletter 10
Audiovisual Librarian 9
Australian School Librarian 1
Author 4
Bibliotheek en Samenleving 25
Bibliotheekgids 1
Bok og Bibliotek 17
Boletin de la ANABA 1
Book Trolley 15
Bookseller 5
Børn og Bøger 1
Bulletin of the Circle of State Librarians 2
Čitadel' 19
Classification Society Bulletin 1
Computer Weekly International 1
Dirección General de Archivos y Bibliotecas: Boletin 1
DK-Mitteilungen 2
EALA Bulletin (East African Library Association) 9
Eastern Librarian 2
Erwachsenenbildung in Österreich 1
Focus on International & Comparative Librarianship 8
Geoscience Documentation 1
IASLIC Bulletin 1
Igaku Toshokan 8
Iranian Library Association Bulletin 3
Jamaica Library Association Bulletin 7
Journal of Philippine Librarianship 1
Journal of the Hong Kong Library Association 2
Kirjastolehti 48
Könyvtári Figyelő 14
An Leabharlann. The Irish Library 28
Lecture et Bibliothèques 5
LIBER Bulletin 4
Library Association Medical Section Bulletin 2
Library Herald 4
Library Materials on Africa 6
Library Research News (McMaster University) 1
Literary Criterion (Mysore) 1
Local Government Chronicle 1
Management in Action 2
Modern Hospital 1
Muncipal Journal 2
Nachrichten. Nouvelles. Notizie 7
National Central Library Newsletter (UK) 5
National Central Library Bulletin (Taiwan) 5
New Society 1
Open Access 1
Recorded Sound 1
Rhodesian Librarian 5
Skoolbiblioteek (School Library) 3

LISA (cont.)

Solanus
SSRC Newsletter (Social Science Research Council) 1
Technology Ireland 3
Times Educational Supplement 2
Times Higher Educational Supplement 2
Times Literary Supplement 2
Toshokan Gakkai Hempe 2
Toshokan Kai 24
Training Newsletter (Local Government Training Board) 1
Trends in Education 2
Ugandan Libraries 9
L'Universo 1
World Hospitals 1

37 titles 268 items

LL

A.L.A. Bookman's Weekly (37)
AHIL Quarterly (5)
Alabama Librarian (1)
American Journal of Sociology (1)
American Scholar (1)
American Theological Library Association Newsletter (5)
Architectural Forum (0)
Architectural Record (0)
Arkansas Libraries (8)
ARLIS/NA Newsletter (1)
Art Bulletin (2)
Artibus Asiae (0)
Artists' Proof (0)
Barn och Kultur (?) [LL covered 15 for the 1971 issues]
Bay State Librarian (8)
BCLA Reporter (6)
Berita (3)
Bibliofilia (?) [LL covered 6 articles for the 1971 issues]
Bibliographical Society of America Papers (12)
Black Scholar (1)
Bollettino dell'Istituto di Patologia del Libro (14)
Book Collector (20)
Bookbird (48)
Booklist (20)
British Columbia Library Quarterly (12)
Bulletin de Documentation Bibliographique (53)
California School Libraries (15)
Choice (16)
Columbia Library Columns (7
Connecticut Libraries (14)
Cornell University Library Bulletin (30)
Cue (1)
Current Biography (1)
Dakota Library Bulletin (1)
Dartmouth College Library Bulletin (8)
Documenta 70 (0)

-- (cont.)

Feliciter (9)
FLC Newsletter (4)
Focus on Indiana Libraries (19)
Georgia Librarian (7)
Horn Book Magazine (23)
Idaho Librarian (8)
International Social Science Journal (1)
Iowa Library Quarterly (11)
Isis (0)
Journal of Asian Studies (0)
Journal of English and Germanic Philology (0)
Junior Bookshelf (3)
Kansas Library Bulleti (5)
Kentucky Library Association Bulletin (6)
LACUNY Journal (14)
Leads (3)
Liaison (0)
Library Chronicle (4)
Library News Bulletin (27)
Library Occurrent (15)
LLA Bulletin (Louisiana Library Association) (15)
Michigan Librarian (11)
Minnesota Libraries (5)
Mississippi Library News (16)
Missouri Library Association Newsletter (3)
Mountain Plains Library Quarterly (3)
Museum (Unesco) (3)
Nebraska Library Association Quarterly (17)
New Jersey Libraries (5)
New Mexico Libraries Newsletter (3)
New York Public Library Bulletin (7)
New York Review of Books (1)
Newsletter on Intellectual Freedom (9)
North Dakota Library Notes (6)
NYLA Bulletin (5)
Ohio Library Association Bulletin (8)
Oklahoma Librarian (26)
Oriental Art (0)
PNLA Quarterly (10)
Previews (Library Journal/School Library Journal) (9)
Princeton University Library Chronicle (2)
Private Library (13)
Public Library Trustee (2)
Religious & Theological Resources (3)
Renaissance Quarterly (0)
Revista Inter Americana de Bibliografía (2)
Revue Belge d'Archéologie et d'Histoire (0)
Revue Française d'Histoire du Livre (0)
SRRT Boletin (12)
School Library Journal (83) [nb. Duplicate of Libr. J. - not counted here]
Serif (3)
South African Library Quarterly Bulletin (2)
South Carolina Librarian (3)
South Dakota Library Bulletin (0)

LL (cont.)

Southeastern Librarian (8)
Southern Medical Journal (1)
Synergy (17)
Tennessee Librarian (10)
Texas Libraries (14)
Texas Library Journal (25)
Top of the News (38)
Unabashed Librarian (23)
Utah Libraries (8)
Vermont Libraries (9)
Virginia Librarian (11)
Walters Art Gallery Journal (0)
Wisconsin Library Bulletin (43)
Worldwide Art Library Newsletter (6)
Wyoming Library Roundup (11)
Yale University Library Gazette (10)

106 titles 936 items

RZI

APEA Journal 1
Archivmitteilungen 12
ASIS Newsletter 2
Australian Road Research 1
Bibliografický Zbornik 9
Bibliotechno-Bibliograficheskaya Bibliotek AN SSSR i Akademii Nauk Soyuzni Respublik 8
Biblioteek Bydr Staatsbibliotheek Pretoria 4
Biblioteku Darbas 12
British Printer 2
Büroansrüstung 3
Büromaschinen Technik 3
Bürotechnik mit Betriebsführung 20
Bürotechnische Sammlung 46
BZB 48
Cahiers de la Documentation 2
Canadian Univ and Coll 2
Chemical Engineer 1
Chronique de l'Unesco 1
Ciência da Informação 7
CODATA Newsletter 0
Colorado Academic Libraries 0
Cornell Eng 1
Cuadernos de Información Cientifica 3
Data Processing Magazine 0
Diagramm 9
Documentreproductie 1
Electric Light and Power 1
Engineer 1
Engineering Digest 1
Engineering Materials and Design 3
Fachbibliographischer Dienst Bibliothekswesen 0
Fact Equip. News 2

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ZI (cont.)

FEN 1
FID/CAO Newsletter 5
Finite String 1
Foundations of Language 7
ICSU Bulletin 1
IEEE Spectrum 1
Industrial and Commercial Photographer 6
Informaciones. Biblioteca de la Universidad Nacional de la Plata 4
Informačné Systémy 5
Informačný a Metodický Spravodajca 17
Informačný Bulletin. Slovenska Akademia Vied 25
Information Processing Jap 2
Informatsiya o Bibliotechnom dele i Bibliografii za Rubezhom 25
International Journal of Computers and Information Science
Journal of Phil. Log. 1
Journal of Research National Bureau of Standards 1
Journal of the Royal Town Planning Institute 1
Kagaku Gizyutsu Bunken Sabisu (Science and Technology Information Service) 3
Kantoor en Efficiency 15
Kibernetika 4
Knižničy Sbornik 12
Kodak Mikrofilm Report 5
Könyvtéros 15
Kosmos 1
Laboratory Equipment Digest 2
Library Action 0
Linguistica Antverpiensia 0
Lithoprinter 2
Mach Des 1
Mathematical Syst Theory 1
Metodicky Leták. UVTEI 4
Metrika 1
Mezögazdasági és Elelmiszeripari Könyvtárosok Tájékoztatója 6
Microfiche Foundation Newsletter 3
Mitteilungen der Gesellschaft für Bibliothekswesen und Dokumentation des Landbaues 11
Modern Datatelmik 3
Módszertani Körlevél 10
Monotype Bulletin 3
National Diet Library Monthly Bulletin 3
National Diet Library Newsletter 2
Nauchnaya i Tekhnicheskaya Informatsiya za Rubezhom. Sbornik 4
Nauchnye Doklady Visshei Shkoly. Filosofskie Nauki 8
Naukovedenie i Informatika 22
New Scientist 1
New Zealand Electrical Journal 1
NFAIS Newsletter 3
Noticias. Conselho Nacional de Pesquisas. Institutio Brasileiro de Bibliografia e Documentação 2
Novy Knigi za Rubezhom 9
Office 30
Offset Printer 1
Opt Spectra 1
Organisation et Méthodes 1
Organizacja, Metody, Technika 7

NZI (cont.)

Pensiero e Linguagio in Operazione 3
Polytechnish Tijdschrift 3
Poradnik Bibliotekarza 5
Prace Naukoznawcze i Prognastyczne 9
Preklady z Odborné Literatury 1
Probory i Sistemy Upravleniya 9
Printing Equipment and Materials 3
Printing Impression 2
Printing Magazine 4
Production Engineer 1
Progrès Scientifique 1
Przeglad Informacji o Naukeznawstwie 1
Rapport NTH Biblioteket Universitetet Trondheim 4
Rationalisierung 5
Rationelle Büro 10
Rechnungswesen, Datentechnik, Organisation 9
Reference Services Review 1
Reproduction 2
Reproduktie 3
Reprographics 2
Revista Bibliotecilor 19
Schriftenreihe der Technischen Hochschule in Wien 11
Science Policy 2
Sofutowa Kagaku. Software Science 4
Sovetskie Archive 17
Stainless Steel 1
Statistical Methods in Linguistics 3
Synopsis 1
TE Report für Technisches Büro 13
Teorie a Metoda 13
Translation News 2
Trudy Informatikov Litvi 10
Tsentral'ni Nauchno-issledovatel'skii Institut Tekhnologii Mashinostroeniya Trudi 4
Vedecké Informace ČSAV 7
Vestnik Moskovskogo Universiteta. Filologiya 1
Voprosy Izobretatel'stva 33
Work Study 1
World Index of Scientific Translations and List of Translation Notified to ETC 2
Zagadnienia Naukoznawstwa ODIN PAN 5
Zeitschrift für Datenverarbeitung 11
Zyoho Kagaku. Information, Information Processing, Information Retrieval 14

126 titles 753 items

Relationship of Core Journals to the Above List

In Table 15, Chapter 7 a list of 49 journal titles was shown which appears, on the basis of previous work as well as the present investigation, to represent the core of periodicals in our field. The following figures demonstrate the likely number of items generated in a year by these titles that should be covered by the abstracting services.

Aktualne Problemy Informacji i Dokumentacji 42
Angewandte Informatik 7
ASTIA Information et Documentation 21
Aslib Proceedings 43
Australian Library Journal 44
Bibliotekar' (Moscow) 18
Bulletin des Bibliothèques de France 21
Bulletin du CIMAB 30
Bulletin of the Medical Library Association 25
Československá Informatika 36
College & Research Libraries 25
Documentaliste 15
Dokumentesyon Kenkyu 19
IEEE Transactions on Professional Communications 10
Informatik 30
Information 19
Information Scientist 10
Information Storage & Retrieval 40
International Library Review 30
Journal of Chemical Documentation 54
Journal of Documentation 16
Journal of Librarianship 21
Journal of Library Automation 20
Journal of Micrographics 24
Journal of the American Society for Information Science 75
Library Association Record 51
Library Journal 91
Library Quarterly 12
Library Resources & Technical Services 41
Library Trends 50
Libri 20
Methods of Information in Medicine 40
Microdoc 10
Nachrichten für Dokumentation 30
Nauchno-Tekhnicheskaya Informatsiya 269
Nauchnye i Tekhnicheskie Biblioteki USSR 135
Probleme de Informare şi Documentare 28
Program 20
Rivista dell'Informazione 12
Sovetskoe Bibliotekovedenie 54
Special Libraries 59
Studii şi Cercetări de Documentare 20
Technická Knihovna 33
Tidskrift för Dokumentation 21

Tudományos és Műszaki Tájékoztatás 19
Unesco Bulletin for Libraries 39
Wilson Library Bulletin 41
Zeitschrift für Bibliothekswesen und Bibliographie 25
Zentralblatt für bibliothekswesen 41

The total estimated number of items from these titles is 1700. This represents 25% of the periodical articles covered by all six services in 1973 and about 30% of the articles covered by the five abstracting services.